THE POLAR TIMES

FARTHEST NORTH JUNE 1, 1882 —83 degrees, 24 minutes

The West coast of Greenland as seen from the "Aries."

The Polar Times

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No. 20 JUNE 1945

North Magnetic Pole 'Fixed' 300 Miles Away From 'Home'

SHAWBURY, England, May 28 (Reuters)—The north magnetic pole has moved nearly 300 miles since its position was last fixed as being centered on the Boothia Peninsula on the Franklin Strait in North Canada.

It now is centered in the Sverdrup Islands, roughly 300 miles north, northwest of its former position.

These discoveries were made at exactly one hour past midnight—0900 hours Greenwich mean time—on the morning of May 26 by the specialist crew of the Lancaster Aries sent out on a technical investigational trip by the Empire Air Navigational School at Shawbury.

The discovery explains why, for years past, navigators and mariners have been experiencing strange unaccountable errors in their calculations and in the courses they have plotted.

The present standard corrections and variations will have to be altered by the amount of the angle between the former plotted position of the magnetic pole—the position now marked on maps—and its position in the Sverdrup Islands.

The flight led to a number of very far-reaching discoveries, some of which are being preserved as close secrets for security reasons for the time being. Another effect of the flight is that all known polar navigational charts have, automatically, become obsolete and will have to be re-plotted along entirely new lines.

This is due to the testing of a special theory put forward by a Canadian officer, Wing Commander K. C. Maclure of Westmount, Quebec, the flight's senior observer responsible for collecting meteorological radar and special data.

Theory Proposed

Two years ago, when still only a student, Commander Maclure put forward the startling theory that polar flight could become considerably safer and more accurate if the present world system of the meridian grid marking of maps of the polar regions were scrapped entirely and redrawn on a system approaching that of the Mercator projection.

As maps are at present drawn, all meridian lines pass through the north geographic pole, and air navigators have to apply an angle of compass correction for every meridian line passed over. When one is flying in polar regions, this angle varies considerably for every meridian. Consequently, they have to apply a long series of complicated corrections.

In the system put forward by the Canadian officer, the Greenwich meridan is called the "Gee" meridian, and all others are drawn as parallels to it, the land masses being redrawn accordingly. The result is that the angle of intersection of each meridian remains constant, and the air navigator can work out one simple constant correction and set it to his compass before he starts out.

The Aries was the very first plane to fly over the magnetic pole. It flew over it twice and also over the geographic pole. On each trip it carried special maps drawn on the Maclure system.

Found Accurate

The correction worked out by Commander Maclure before the start of the flight proved fully accurate, enabling the plane to make accurate landfalls and cutting out entirely the previous numerous navigational errors due to the present methods of map drawing.

After the Aries touched down at Shawbury, Wing Commander D. C. McKinley, Captain of the aircraft and officer in charge of the expedition, said the flight has shown the standard polar navigational textbooks to be gravely wrong on the matter of altitude flying conditions over the pole.

"In the past, we were told that air conditions over the pole were stable and that there would be no ice at altitude. That is quite wrong. We found ice, and we found the place bumpy. However, it is quite safe for passenger routes if the plane can fix its position accurately. Over the magnetic pole, there was no electrical disturbances of the radio to speak of and signals were loud and clear. Warrant Officer Smith, the second wireless operator, was the first man ever to receive a position as zero zero zero. We were over the magnetic pole for the first time.

In the flight, the plane carried a number of specially designed polar flying instruments. It located the magnetic pole by a special magnetic dip-registering instrument. When over the magnetic pole, the dip recorder registered between 89 and 90 degrees of dip, evidencing that the magnetic pole lay beneath. Dip is the angle at which a compass needle will point downward if suspended in midair.

"Aries" Captain Plans South Pole Flight

LONDON, June 14. — (Reuters) — Wing Cmdr. D. C. McKinley, captain of the R.A.F. Lancaster "Arie" which flew over the geographic North Pole last month and mapped the magnetic North Pole, said yesterday he was considering a similar flight over the geographic South Pole.

He said, however, it was unlikely that the flight could be organized for at least 18 months.

British Bomber Makes Flight Over North Pole

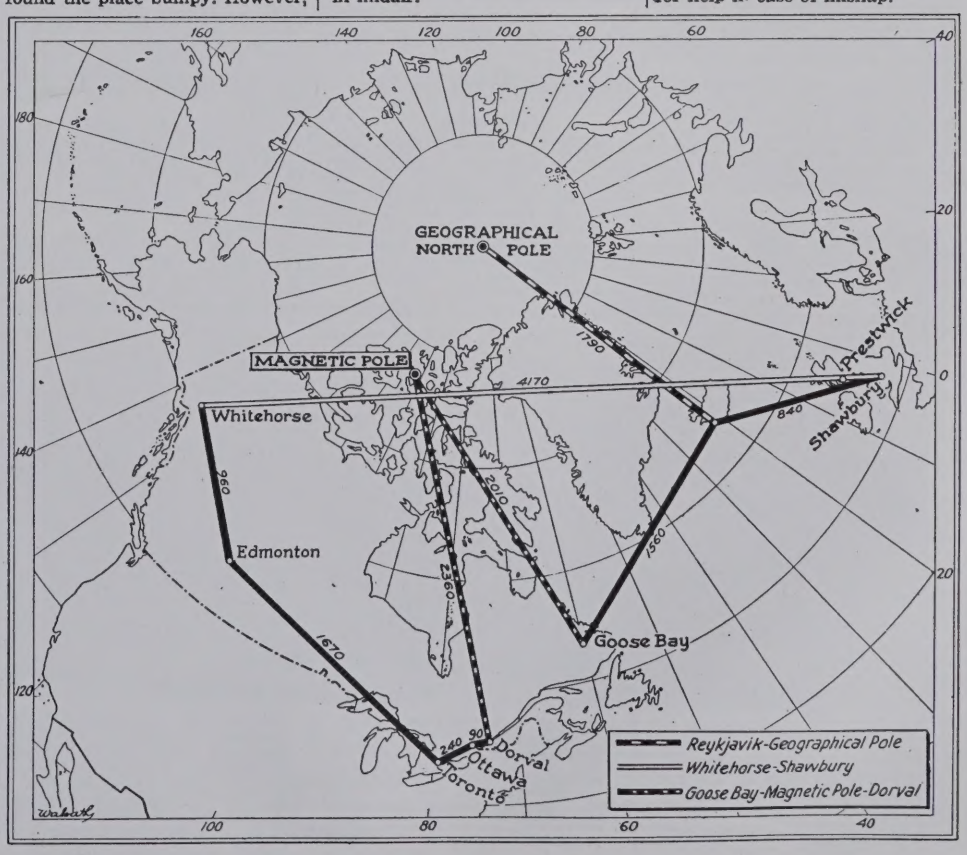
Gathers Arctic Flying Data on Non-Stop Trip

LONDON, May 17 (AP).—The Royal Air Force Lancaster Aries completed today a successful scientific non-stop flight over the geographical North Pole from a base in Iceland, the Air Ministry announced tonight. A flight over the magnetic pole, in Canada, is to follow.

The plane, piloted by Wing Commander D. O. McKinley, who also flew the Aries around the world and on a tour of the United States, Canada and South Africa last year, left Iceland at 5:23 p. m. yesterday. It returned to Iceland at 12:06 p. m. today and was estimated to have passed over the Pole at about 3 a. m. today.

The flight was sponsored by the Empire Air Navigational School of the R. A. F. Flying Training Command for the announced purpose of studying navigation and flying conditions in the polar region.

The plane, which also conducted scientific tests, had a crew of eleven. Members carried Arctic survival equipment with special, lightweight balanced diets for four weeks and were equipped to travel for help in case of mishap.



Arctic Future Held Bright

Dr. L. M. Gould Predicts Great Possibilities

MONTREAL, Quebec, Jan. 20 Long considered a land of ice and snow and little habitation by many, the Arctic regions of United States and Canada may be one of the main air routes of the future, according to Dr. L. M. Gould, noted antarctic explorer who made four trips to that region with Rear Admiral Richard Byrd, and is considered one of America's greatest authorities on the subject.

A member of the Board of Directors of the Arctic Institute of North America, which completed its first meeting in the Windsor Hotel last night, Dr. Gould was appointed acting director of the institute which will have its permanent headquarters in Montreal. Its object is to collect and disseminate information on the northland for use of those who wish to develop its natural resources and to make their homes.

The institute also agreed to admit Labrador and Newfoundland representatives to the board and telegrams were sent to the names of representatives chosen for their acceptance.

Previously the institute, founded in New York last year, consisted of only delegates from the United States and Canada. Dr. H. L. Keeleyside, new Canadian ambassador to Mexico, acted as chairman during the meeting.

Dr. Gould said the Arctic contained unlimited raw materials and added that nobody today in looking over any map of this region could fail to see the great possibilities promised for post-war aviation.

"For people who have had such good experience in international co-operation, I think we have a sufficient guarantee of success in this venture when we consider it is underwritten primarily by Canadians and Americans," said Dr. Gould.

In connection with post-war air routes over the Arctic, he spoke principally of air services to and from Russia which he said would almost certainly travel over this area. He also saw great possibilities for those who wished to settle in the Arctic, declaring that from a climatic standpoint it was little different than that of the thickly populated Scandinavian countries.

He added, however, that it would be foolish to expect the Arctic regions to be as attractive to settlers as the southern, more temperate areas of Canada and the United States.

"We expect to have the very best information available for those who are interested and also to have a reference of information to which they can have access before embarking on any mission to the Arctic," he said.

For two years Dr. Gould was chief of the Arctic Desert and Tropic Information Centre of the United States Army Air Force, and at present is head of the department of geology and geography, at Carlton College, Northfield, Minn.

Dr. L. Gould to Head College

NORTHFIELD, Minn., May 15 (AP)—Dr. Laurence M. Gould, aged 48, scientist, Arctic explorer and author, was named president today of Carleton College by the board of trustees. He will succeed Dr. Donald J. Cowling. Dr. Gould, Professor of Geology at Carleton for thirteen years, was second in command of Admiral Byrd's first Antarctic expedition.

Dr. Ruth Gruber was one of several outstanding authorities on Arctic regions conducting a recent Conference on Problems of the Far North at Carleton College, Northfield, Minn. One of the first of its kind sponsored by a college or university, the conference revealed the great and growing interest in Alaska.

Truman Backs Alaska Highway

OLYMPIA, Wash., June 21 — (A.P.) — President Truman today praised the work of the San Francisco conference and came out flatly in favor of the post-war completion of the Alaska Highway in co-operation with British Columbia and Canada.

He said there is about 600 miles of road to complete.

Arctic Eskimos Say Farewell To Canada's 'Little White Father'

Ottawa, February 22.—(CP) — The Eskimos, trappers and missionaries in the forbidding Arctic circle have seen the last of white-haired David Livingstone McKeand — the "little white father" of Canada's eastern Arctic.

Maj. McKeand, now 67, has travelled 168,000 miles in the land of the midnight sun during 14 voyages as chief of the government's eastern Arctic patrol on the Hudson's Bay Company supply ship Nascopie, but he has made his last journey to the frozen north. No more will he be aboard the Nascopie on her annual voyage, creeping into inlets, bays and lagoons to bring civilization and supplies to lonely outposts.

He is retiring in June as superintendent of the eastern Arctic and Secretary of the Northwest Territories Council for the Mines and Resources Department and plans to settle in Victoria to pursue his hobby of gardening. No successor has been named yet.

Maj. McKeand, still vigorous and chunky, confessed in an interview that he was going to miss the close associations he formed among the people of the northland. And he chuckled reminiscently as he recalled the misgivings with which he took $10,000 worth of first Victory Loan bonds abroad the Nascopie.

"I thought I'd be lucky to sell $200 worth," he said. But he returned with $11,500 in cash, contributed by trappers, hunters, fur traders, Royal Canadian Mounted Police and others met during the trip.

When the King and Queen visited Canada in 1939, Maj. McKeand made a request through official channels for two autographed photographs of them, one for Pond Inlet, on Baffin Island of the Northwest Territories—most northerly post office in the British Empire.

Hearing nothing further, he left for the annual patrol aboard Nascopie. When he reached Churchill, Man., the photographs, sent from Buckingham Palace, were handed to him. One is kept aboard the Nascopie.

Highlight of his northern career has been the "wise administration" of its sprawling charge by the North West Territories Council which has promoted scientific investigations into life in the country and its potentialities.

"Now the administration itself has details on its own files, and lately much of this information has been circulated to the public. It's doing a mighty fine job with the advice and assistance of the R.C.M.P., the fur traders and missionaries," he said.

The future development of the 6,000 Eskimos in the Eastern Arctic is assured.

"The Eskimos receive only that part of our civilization they can absorb," he said. "There is not one case of venereal disease among the Eskimos in the eastern Arctic. No one can go in there without a permit."

In the forefront of the administrative effort was the policy of protecting game, upon which the natives depend for their livelihood. Eskimos are hunters: there is no agriculture and they cannot live in timber countries away from their native tundra. The nomadic, non-tribal system works well.

Tilting back his chair in a souvenir-lined office, Maj. McKeand said the "Northern Messenger" broadcasting service, which carries personal messages to those in the Arctic from their friends and relatives outside, had done "wonderful work."

Recently messages had gone from liberated families in France to their sons, Roman Catholic missionaries stationed in the Arctic, and others had been sent from England and Scotland to relatives who were fur traders or serving with the R.C.M.P.

Maj. McKeand, born in what now is part of the city of Hamilton, Ont., began his career as a banker. He served in the South African and the last war and joined the then Department of the Interior in 1921, when he established administrative and mining recording offices at Fort Smith and Fort Norman, N.W.T. He was appointed Assistant Director of the Northwest Territories and Yukon Branch in 1923.

A past president of the Canadian Rugby Football Union, he was a member of the Hamilton Football Club, dominion champions in 1906. His son, S.Sgt. Martin McKeand, is overseas with the Royal Canadian Army Medical Corps.

AUTHORITIES ON RESEARCH DEVELOPMENT: Authorities on Arctic development and research, members of the board of directors of the Arctic Institute of North America, are shown above, as they began their deliberations in the Windsor Hotel Left to right are Philip Chester, general manager, Hudson's Bay Company, Limited, Winnipeg; G. R. Parkin, Sun Life Assurance Company Limited, Montreal; Major R. F. Flint, chief of the Arctic section, U.S. Army Forces Tactical Centre, Orlando, Fla.; Dr. E. M. Hopkins, president, Dartmouth College, Hanover, N.H.; Dr. H. L. Keenleyside, Canadian Ambassador to Mexico; Dr. Charles Camsell, Deputy Minister of Mines and Resources, and Commissioner of the Northwest Territories, Ottawa; Dr. H. B. Collins, jr., acting director, Ethnogeographic Board, Smithsonian Institute, Washington; Dr. L. M. Gould and Walter S. Rogers, director, Institute of Current World Affairs, New York.

Army to Halt Canol Project For Oil June 30

LongControversy Is Ended; Pipeline on Alaska Coast Will Stay in Operation

WASHINGTON, March 8 (AP).—Operation of most of the controversial multi-million-dollar Canol oil project in northwestern Canada will be halted June 30, the War Department announced tonight.

The move was attributed to an expected improvement in the tanker situation as well as the more favorable military position in the Alaskan area.

The $134,000,000 project was launched in April, 1942, a few months after Pearl Harbor, when Alaska was threatened by the Japanese and the sea route from the United States to Alaska was endangered. Abandonment has long been recommended by Secretary of the Interior Harold L. Ickes, Petroleum Administrator for War, who said the Army went into it without consulting him. Numerous Congressional attacks have been made on Canol, but the Army has heretofore defended it as strategic insurance.

Facilities included in the suspension are petroleum production at Norman wells; a 600-mile pipe line that carries crude oil from Normar wells to Whitehorse in the Yukon territory, and a refinery at Whitehorse.

American personnel and movable equipment, such as trucks, will be withdrawn as rapidly as possible, the department said, adding that several hundred experienced refinery men will be released for jobs in United States refineries.

Still to be left in operation is a petroleum products pipe line which will deliver motor fuels from Skagway, on the Alaskan coast, to Whitehorse and thence down the Alaskan highway to Watson Lake and up the highway to Fairbanks.

Northern Airbases To be Kept Open

EDMONTON, June 26 — (C.P.) — Lieut.-Gen. Harold L. George commander of the United States Army and Air Forces Air Transport Command, was en route north today to bases of the Alaska division after a brief stop-over here.

The General, in the U.S.A.A.F. 28 years, said until the defeat of the Japanese no bases of the Alaska division will be closed and the importance of the route in the Far East war is dependent on developments in the Pacific.

"There is enough business right now to keep the division going for a good many months," he said, adding that there was no question the Alaska Division route through Edmonton and the northwest staging route of the R.C.A.F. is an "extremely important" air route commercially.

Women Help Northernmost Oil Field Where Wartime Production Leaps Ahead

By Joan Gardner
The Christian Science Monitor

Norman Wells, Canada, lying at the rim of the Arctic is not even a pin point on the map today, yet here 40 Canadian women have been doing their part for the war under conditions little less primitive than those faced by our forefathers when they broke the trails to the northwest in frontier days.

Those women—stenographers, clerks, nurses, waitresses, and laundry workers—have been helping to staff the world's northernmost oil field so that Allied planes might have more of this vitally needed fuel. They, along with the 400 men who make up the community, have been instrumental in jumping production of the wells from a peacetime 80 barrels a day to the present 4,000 barrels a day. They are employees of the Imperial Oil Company, Ltd.

Their nearest contact with civilization is at Edmonton, Canada, 1,500 miles south, a distance requiring six weeks to cover by overland route, but which by plane is only seven hours away. Nearly everything the community needs is therefore flown in. Even the prefabricated weatherproof "igloos" equipped with oil stoves, in which the women live, arrived by air only a few days ahead of them. Weekly supplies of food and other household needs arrive by plane, except meat and fish which are shipped in during the open months of summer. The camp maintains a well balanced diet the year round—a diet which includes homemade bread and pastries, canned goods, powdered milk and eggs.

The women have shown themselves very adaptable under the difficult strain of adjustment to almost primitive living. They quickly set to work, for instance, to make the huts livable, transforming orange crates into dressing tables with blanket skirts, and using oil sheets and blankets for window draperies.

Woolen slacks replace skirts as the common costumes except on Saturday nights when a simple print dress, by contrast, looks as glamorous as an evening dress for the dancing and games which are the weekly recreation. For daily wear the Eskimo's mulaks (leather boots lined in fur) and mittens help to keep busy hands and feet warm. Parkas lined with pile or wolverine fur, and bright woolen scarfs serve as hats. The girls collect fancy ceremonial mittens to add a touch of color to drab woolens and these often are worn on slender leather cords so that they dangle down the back when not in use and serve as cushions between times.

Nearly all of the girls have their own postwar plans and are saving the bonus-plan salary which they earn for such ventures as tea rooms, book shops, and beauty parlors of their own. Others with husbands and fiancés overseas are planning and saving for their new homes.

Reading is the favorite relaxation, along with letter writing and knitting. The girls keep abreast of events outside through the radio, newspapers and magazines.

Life in Norman Wells where the winter is nine months long is in contrast to the turbulent days of the Yukon. Here are sober, steadfast, Middle Western oilmen (Americans and Canadians) who are bent on winning the war as soon as possible, and to this end are overcoming each new obstacle in the production of oil with the best knowledge and equipment modern science can provide. They are not unaware of the fact that Norman Wells may one day be at the crossroads of the air lanes of the future, an important service station for the cross-continental airliners of tomorrow.

HAD TAIL FROZEN IN LAKE

Husky Joins Rescue Unit After Crash in N. W. Canada

EDMONTON, Alberta (Canadian Press) — Sacktime, an Eskimo husky dog, who survived an airplane crash which killed his master Nov. 5 in the Northwest Territories, is back at Fort Nelson and now is a member of the Sled and Parachute Pack Dog Section of the United States Army Air Forces Search and Rescue Squadron.

He was found Nov. 10, by Capt. William R. Jacobs, flight surgeon of the Alaskan Division, who bailed out at night from a rescue plane. The pilot, Capt. George C. Dorris of Roundup, Mont., was dead.

Sacktime, in the rear cockpit of the single-engined plane was trapped in such a way that his tail had frozen into the lake where the plane crashed. Captain Jacobs had to chop the dog free.

The plane dropped about 120 miles north of Fort Nelson, B. C., after it was overtaken by a snowstorm.

WOLVES ROAM CANADA

Large Increase in Northwest Due to Trapper Shortage

WINNIPEG (Canadian Press)—Wolves, less bothered by man than in pre-war years, are thriving in many of Western Canada's northern areas. And now they are so bold they even parade the streets of settlements and park in back yards.

Exodus of many trappers to wartime work and the armed forces and more attractive occupations in some districts for other men of the traplines have encouraged the growth of these animals of prey.

In northern Manitoba and northwestern Ontario wolf packs are reported roaming in large numbers. A prospector, on a recent visit to Port Arthur, expressed fears wolf packs would destroy more deer and moose this winter than hunters would kill in the next ten years.

Airline Planes Prevented Raid On Alaska in '42

The story of how airline transport planes were pressed into emergency service to bolster our Alaskan defenses against a threatened Japanese invasion in 1942 was disclosed April 7 by the Air Transport Association of America in a review of the services the commercial lines have performed in three years of war.

Passengers who may have wondered why they were put off planes hundreds of miles from their destinations on June 13, 1942, may now be told that the planes—forming a sort of aerial counterpart to the famous taxicab army of Paris in the World War—flew north to play their part in keeping the Japs out of Dutch Harbor and a foothold in North America.

On that date the Japs were on Attu and Kiska and were threatening Dutch Harbor. At 6 p.m. orders went out from Washington to the headquarters of 11 airlines to send every available transport plane to Edmonton, Alberta, whence they would rush men and materials to Alaska.

Within minutes flight superintendents had radioed orders to all planes from coast to coast to alter their courses, land their passengers at the nearest airport, and head for Edmonton.

From the Edmonton base the "minute man" fleet began shuttling vitally important ammunition, medicine, food, machinery, guns and personnel to the Alaskan command. These flights of thousands of miles were made over uncharted terrain where mountain ranges forced planes to 23,000 feet for safety. And at Anchorage there was more work to be done.

Dutch Harbor had been bombed by the Japs and the American forces there needed ammunition. A Jap aircraft carrier had been reported in the vicinity, but Capt. Bob Dawson and First Officer M. W. Ashby of United Airlines promptly volunteered to fly the ammunition in.

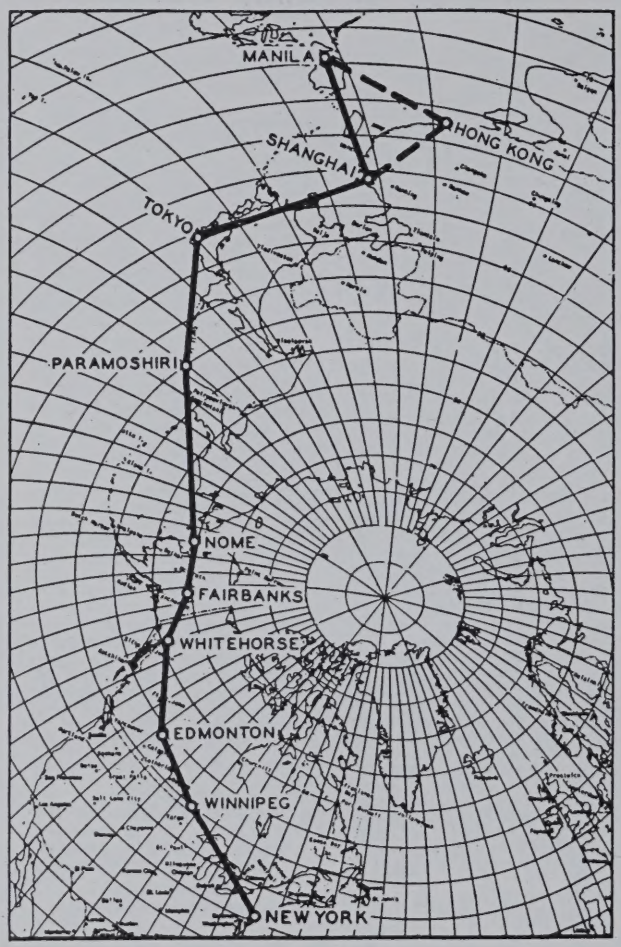
They took off at night for a flight down the Aleutian Islands chain with no lights and only instruments to guide them, and they landed safely at a field where the rough runway was outlined for them by men holding flashlights.

Dawson, incidentally, confirmed the presence of the Jap carrier, too. Coming out of the overcast he found himself almost directly over it, but the Japs didn't detect him.

The lines that shared the Alaskan mission were Pan-American, United, American, Eastern, Northwest, Pennsylvania Central, Transcontinental and Western, Chicago and Southern, Western, Braniff, and Pan-American Grace.

In the frst three years after Pearl Harbor, December 7, 1941, the Air Transport Association says the army and navy used 193 airline planes and 1,200 airline pilots.

New York Is Called Best Airport For Direct Service to East Asia



Route from New York to the Far East over the Arctic as outlined by the New York Port Authority.

Port Authority Tells CAB That Route Via Alaska Is Shortest—Traffic Prospects Declared the Greatest

WASHINGTON, Feb. 13—The Port of New York Authority urged the establishment of the port as a terminal for direct airline service between the United States, Alaska and East Asia, without intermediate stops in United States territory. Appearing at the first of a series of hearings called by the Civil Aeronautics Board on the applications of eleven companies to provide air service to the Far East, John W. Moore, traffic manager for air transport for the Authority, said that American flag routes would have to offer the most convenient and direct service between the great centers of population in this country and the important points in East Asia in order to compete with the service of foreign flag carriers.

The most direct route, which avoids loss of time and inconvenience encountered at international ports of entry, was declared by Mr. Moore to be from New York direct to Winnipeg, Canada, from there by way of intermediate stops to Nome, Alaska, and then to China, Japan and Manila.

"Such a route," he said, "would be 1,600 miles shorter than the existing route by way of the Pacific Coast ports and Hawaii and 460 miles shorter than the route via Seattle and Alaska. It would provide passage without change of plane for traveler, mail and air freight."

Mr. Moore predicted that 38,000 passengers a year will travel the route in the early post-war period if direct service is provided. Of this number, he said, about one-fourth, or an average of twenty-two passengers a day, will originate in the Port of New York area, not including three passengers daily bound for Alaska.

This estimate, Mr. Moore added, did not include the "substantial" potential of traffic from Europe, South America and the Caribbean, which would prefer a through route from New York.

"Direct service to East Asia via American flag service from the Port of New York would close the gap which otherwise would exist in the American flag routes from those areas to East Asia," he suggested.

The Authority also presented evidence to show that more than 40 per cent of the international mail and about 50 per cent of the value of trade with East Asia originated in the port district and that this area was the center of financial and commercial relations with East Asia companies.

SAYS JET PLANES CUT ICE HAZARDS

Bell Aircraft Tells of Tests in Alaska of Country's First Turbo Ship

BUFFALO, April 28 (AP)—Use of jet-propelled planes will eliminate many of the difficulties now faced by military and commercial aviation in carrying on ground and flight operations in extremely cold temperatures, according to Arthur L. Fornoff, director of service for the Bell Aircraft Corporation.

He said that the country's first jet plane, the Bell P-59 Airacomet, was tested for three months at Ladd Field, Fairbanks, Alaska, where temperatures dropped to as low as —40 degrees Fahrenheit.

"Winterization problems normally associated with conventional aircraft were not encountered with the jet-propelled plane," Mr. Fornoff said.

"The General Electric turbo jet engines incorporated in the P-59s," he explained, "use such thin oil, normally, that the usual problems of heating and diluting oil for reciprocating engines were not even a consideration. Engine heating or warming up before take-off is not necessary * * * and ground maintenance proved amazingly simple in the cold weather.

"The absence of a propeller on the P-59 means that the pilot has no worries over "prop" icing or pitch-changing control. If the problem of icing on wing or tail surfaces is a serious one, a system of ducting heat from the tail pipe to the affected areas could be worked out. As it is, windshield defrosting in the Airacomet is remarkably efficient."

Mr. Fornoff said that tests were conducted on the jet plane's fuel system since its chief fuel, kerosene, does not act like gasoline at low temperatures.

"It was also confirmed repeatedly," he added, "that the increased oxygen from the cold air, which is greatly densified at lower temperatures, increased the thrust from the jet engines, making for shorter, faster take-offs and increased speed at lower altitudes."

G. I. Raftsmen Float Supplies To Alaska Base

Conquer Two of World's Toughest Rivers to Haul Oil and Gas 500 Miles

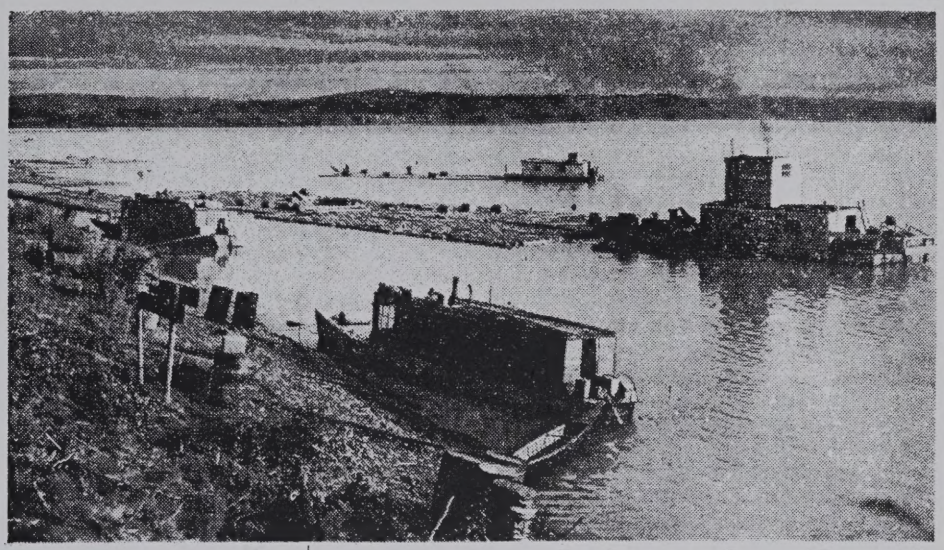
By Leo Cullinane
New York Herald Tribune

WASHINGTON, May 12.—Up in the Alaskan wilderness where the waters of the Tanana meet the Yukon, the Army has overcome staggering obstacles to operate a 500-mile supply line that is reminiscent of the exploits of the gold-rush days.

But the Army is concerned there nowadays with "black gold"—the rich oil and gasoline being transported to an important military air base at Galena, where it is relayed to Pacific bases and to Russia.

Faced with the gigantic job of transporting 50,000 tons of supplies (the equivalent of five Liberty shiploads of cargo), the Army's Transportation Corps plunged into the task despite lack of suitable equipment, man-power shortages—and nature.

Two of the world's mightiest rivers had to be tamed in the process—treacherous Tanana and the rugged Yukon with its ever-changing channel. With members of the Minto Indian tribe the Army officers built rafts to float the drums of precious oil and aviation gasoline down the river.



Tezi Cache, at confluence of Tanana and Yukon Rivers. Here 300-drum rafts are assembled, lashed into larger rafts and floated down the Yukon to Galena

Natives, accustomed only to small steamers along the rivers, stopped to gape at the strange sight of countless drums wired together in rafts floating down river toward the military camp.

Officers who knew of the hazards involved say the soldiers who manned the drum rafts deserve high decorations for their dangerous work. The swift-rolling rafts with the men on them constituted a constant danger of severe injury and the possibility of losing their footing and falling into the treacherous and unbelievably swift waters. However, only one casualty was sustained, when a soldier fell off a raft as it was being carried past Squaw Crossing, a short distance from the point where the Tanana flows into the Yukon.

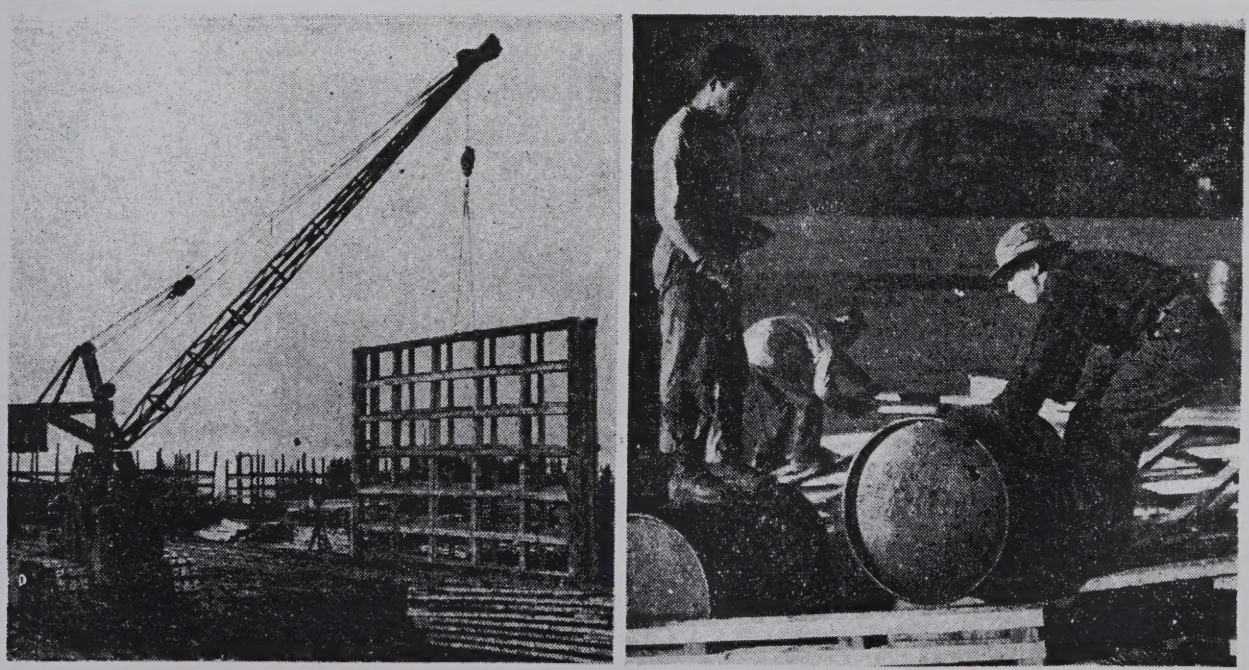
Accompanying the rafts was a motley fleet of small craft powered with outboard motors, converted automobile engines and small Diesels—anything that would push a boat through the water and help negotiate the tortuous course and hairpin curves that made navigation a nightmare.

Naturally there were several breakdowns, with rafts running aground and drums of oil lost by sweeping down the river. But the most heartbreaking experience came near the end of a trip in the Yukon. Here the river normally flows at a reasonable pace and is wide and deep. But on this day a brisk wind blew and the waves reached a height of ten feet. The rafts would break up quickly in such rough water, so a "retreat" had to be effected to a sheltered cove until the storm ended.

Although most of the supplies finally arrived and "mission completed" was written into the record, transportation officers agreed that no speed records were broken on the unusual trip and that only the inexorable demands of war could bring about the use of such extreme methods and routes.

U. S. to Quit Canada Air Bases

OTTAWA, June 7 (CP).—The United States is expected to withdraw the greater part of its Army personnel from air bases in northern Canada during the summer, it was learned today.



Raft frames made by civilian carpenters at Nenana, Alaska, being moved by crane. Frame holds thirty drums. Right: Oil drums being slotted on raft prior to being slid into river. Rafts are pushed out into current and guided or towed where necessary by power boats

Evelyn Stefansson Thinks and Talks 'Arctic'

Wife of the Famous Explorer Successful in Various Fields

By Olive Pearson Rice
The Christian Science Monitor

The Stefansson Polar Library in New York City needed a librarian. Just then Evelyn Schwartz Baird breezed by, between jobs. "How would you like to be our librarian?" Dr. Vilhjalmur Stefansson, the famous Arctic explorer, asked her.

"Why, I'd love to, but I've always been the artist type, rather than the intellectual. Besides, I can't even typewrite," she replied.

Dr. Stefansson had been acquainted for 14 years with this tall, vivacious, dark-haired young woman and knew her worth. "You can do it," he assured her. "You're bright—and curious. You can learn to typewrite."

So, she went at the job with her usual whirlwind intensity, learned to typewrite in two weeks flat, and went to work in the Library directly. That was in 1939. In 1941 she became Mrs. Vilhjalmur Stefansson and she solemnly declares that it is only after 14 years that she can really pronounce her husband's first name!

For Evelyn Stefansson, life has always been an amazing adventure, one into which she continuously throws herself wholeheartedly. As librarian, she loves meeting and talking to the explorers whom she invites to lunch, she says, and then makes them pay for it by answering countless questions.

All this experience, plus her own research among the thousands of volumes in the Stefansson Polar Library, the largest of its kind in the world, and her husband's unvarying enthusiasm for the Polar regions, fired Mrs. Stefansson to such a pitch she had to do something about it. So she sat down summers in their country home near Bethel, Vermont, and wrote two stories for children about the country she has come to know so well. And, believe it or not, she chuckles, these two books, "Here is Alaska," now in its 7th printing, and "Within the Circle," her latest book, have sold more copies already than any one of Dr. Stefansson's 17 books.

Since 1940 she has been working on geographical research reports for the Army Air Forces, and since 1941 she and her husband and their research staff have been working for the Hydrographic Office of the United States Navy, compiling and writing Sailing Directions of Arctic Waters. These, she explains, are "Baedeckers" of the coast line and waters, with precise information about depths, anchorages, facilities at ports, appearance of landmarks, etc., for the use of navigators. It is probably the first time women have been so employed in the United States, she continues, and she has found the work fascinating. She had to learn an entirely new technique and terminology in order to help prepare the series of four "coast pilots" as the Sailing Directions are called.

Northern Jaunt Next

Mrs. Stefansson accompanied her husband to Colorado not long ago where he taught the Ski Troopers how snow houses can be built in less than an hour. Now she is preparing for an imminent northern jaunt with her husband to the Arctic. They will go by plane, she explains, as there are only a few good roads, and a journey which used to take months by dog sled can now be made in a few hours by air.

In the meantime, Evelyn Stefansson is proving that she can lecture as successfully as she can write on the polar regions, although she has not yet been there herself. Her audiences often include parents of boys who are in the armed forces stationed in the land within the Arctic Circle. She takes particular delight in "crashing the fables" of the Arctic and replacing them with facts.

For one thing, the Arctic Ocean is not an ocean at all, she points out, but a mediterranean sea, almost entirely surrounded by land. In the new maps and books the name is being replaced with more appropriate terms like Polar Mediterranean, Arctic or Polar Sea, which her husband suggested more than 20 years ago.

"The war has rediscovered Alaska for us," she avers. "Just as many gold seekers stayed when the gold rush was over, so many of our soldiers will stay on when the war is finished."

"Go north, young man," may well be the slogan for tomorrow's pioneers, she says, for Alaska is the new frontier to which many G. I. Joes will want to return to "homestead" judging by letters she receives at the Library asking about colonization prospects up there

Questions Quickly Answered

Letters come from Hollywood, too, when a motion picture studio is making a picture of the Far North. Requests for specific information can be quickly answered for the Library's card catalogue is unique; a single book may have 20 to 25 cross-reference cards. Their aim is eventually to catalogue the whole Library as though it were a huge encyclopedia.

When you talk with Evelyn Stefansson you talk "Arctic" because that is the line along which lie her thinking and her plans for the future.

"Everything I have ever done in my life has come in handy," she declares. A native of New York, she graduated from the Washington Irving High School in 1931 and attended various art schools. She has been on the stage, sung, worked in a marionette show as puppeteer for Tony Sarg, painted dioramas for the New York World's Fair, and been a commercial photographer. In fact, she took a series of pictures of the more than 50 children's libraries in New York City for the OWI, to be used in foreign countries.

This last work, photography, is her favorite hobby and she is putting it to good use. She took the picture of herself which appears on the jacket of her latest book. And if at any time the librarian of the Stefansson Polar Library can't be found at her desk, it's more than likely she's out back in her darkroom developing pictures.

Dr. and Mrs. Vilhjalmur Stefansson

Mrs. Evelyn Stefansson and her famous Arctic explorer husband, Vilhjalmur Stefansson, looking at a map of the Arctic preparatory to their imminent journey up there.

Mysterious Fish 'Rains' In Arctic Area Solved

Freezing Sea Found to Force Schools Into Surface Winds

GAMBELL VILLAGE, St. Lawrence Island, Feb. 24 (UP).—One of the most fascinating mysteries of the Arctic—the mystery of the winter-season rains of fish on St. Lawrence Island—has been solved, according to Otto Geist, anthropologist, of New York, who for the last twenty years has made a study of Eskimo culture along the Bering Sea.

Previously reported by Major M. R. Marston, Seattle, military aide to Governor Ernest H. Gruening of Alaska, the "rains" of tomcod and sculpin occur when heavy east winds blow in across the ice pack.

Mr. Geist observed the phenomenon for several winters, and finally discovered the fish were forced to the surface of the freezing ocean by snow which falls into the water but does not melt. So nearly the temperature of the water that it sinks like sand, the mass of snow makes it impossible for the fish to remain on the bottom, and when they rise to the surface they are frozen into the top layer of shelf ice. During the winter, when pressure ridges lift the broken cakes of ice high into the air, the violent Bering Sea winds carve the half-exposed fish out of the ice and whirl them ashore, where they lodge in the cliffs.

Some of the fish weigh up to ten pounds.

Bombing Used to Rescue Many Persons in Alaska

ANCHORAGE, Alaska, May 31 (AP)—A bombing to rescue many persons was carried out here by the 11the Air Force.

The fliers dumped 168,000 pounds of explosives on a Yukon River ice jam, and military authorities said the release of the blocked stream removed all danger to persons in the flooded section. Navy and Army planes flew many of the stranded persons to Fairbanks and Anchorage.

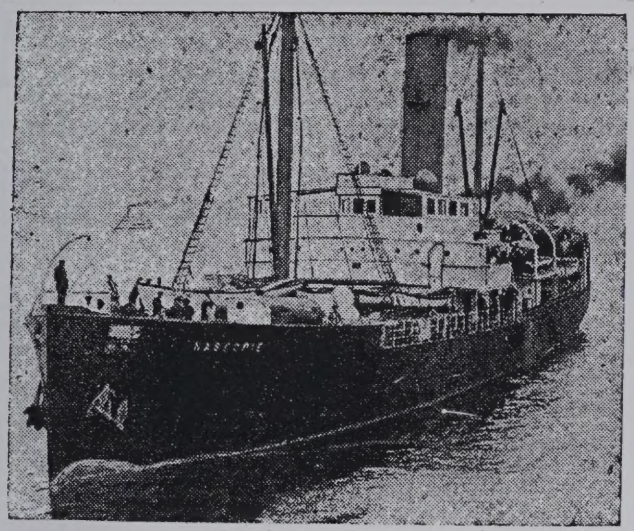
Russian Arctic Health Resort

The first health resort in the Soviet Arctic region will shortly be opened in the village of Goryachie Klyuchi, Siberia. Built with the funds of the central committee of the Trade Union of Workers of the Northern Sea Route, the numerous buildings, rest homes and auxiliary services are situated near healing sulphur springs, surrounded by wild flowers and vegetation. Workers of Soviet Arctic stations and villages and sailors of the Northern Sea Route will be served by the resort.

Long Celebration

SEATTLE (AP)—Wellman Holbrook, assistant U. S. regional forester in Alaska, who has been watching over Alaska's forests and wild life, is not the retiring type.

He retires April 30, and for the celebration, Wellman and his wife will build a boat and make a 1,500-mile trip down the Yukon River.



R.M.S. Nascopie will look like this when she sails on her first peacetime Arctic trip in almost five years. She won't have to guard against submarines this year and her armament has been removed.

Nascopie to Sail Unguarded First Time Since War Opening

Arctic Mercy Ship Loading Miscellany Of Articles For Northern Outposts

By Stanley Mantrop
The Montreal Star

CANADA'S Arctic mercy ship, R.M.S. Nascopie, is almost ready to make her annual trip to the northland, her first unguarded trip since enemy activities cloaked her movements in secrecy in 1940. She sails July 7.

A wide assortment of items from a needle to a rowboat went into her cargo holds for distribution at lonely northern outposts. Names like Chesterfield, Baker Lake, Fort Mackenzie, Dundas Harbor, and Devon Island, are listed among her ports of call: names little heard of except by those whose livelihood takes them into the rim of Canada's Arctic Circle.

Miscellaneous Cargo

Nascopie carries only 1,900 tons of freight so her official records say, but the tonnage is made up of thousands of boxes — medical supplies, food, ammunition and hundreds of other items. They will be the first to reach these northern outposts since the ship made her last call in 1944. Supplies needed for the coming year were wirelessed out last fall and the order was filled in time for the Nascopie's sailing.

One entire harbor shed is filled with goods for the northland and boxes are stacked almost 20 feet high. What can't go into the Nascopie's holds will be lashed on decks. Included in the deck cargo are a number of boats to be used by members of the Royal Canadian Mounted Police.

Missing among the 28 passengers scheduled to sail from Montreal this year will be Major D. L. McKeand, formerly officer in charge of the Eastern Arctic Patrol. He is being succeeded by J. G. Wright, of Ottawa, who will be in charge of the government party.

However, Major McKeand will join the ship at Churchill, Canada's northerly port on Hudson's Bay. His duties this year will be grim ones. He will serve as magistrate at an Eskimo murder trial along with other Canadian Government officials who will bring Canadian justice to the far north for the second time within three years. Their last duties were at Belcher Islands, deep in the Arctic, where an Eskimo murder trial was in progress.

Eye Care For Eskimos

Because of the rigors of a severe Arctic winter many Eskimos were stricken with snow blindness and eye trouble and this year the Nascopie will carry one of Canada's noted oculists, Dr. Walter Crewson, of Toronto; an optometrist, Flt. Lieut. A. H. Tweedle, and other assistants to heal the Eskimos.

Also on board will be three medical officers, Dr. F. S. McCarthy, Dr. Campbell Laidlaw, and Dr. Denis Jordon, who will examine all those in need of medical attention. Back on the job, too, will be F. R. E. Sparks, Canada's only sea-going postmaster.

New Royal Canadian Mounted Police posts will be re-opened in the Arctic this year and Inspector J. H. Peacock will head a detachment of 10 police going in to take up new duties. There will also be members of the clergy, Father Girard, going to Roman Catholic Missions, and Canon and Mrs. H. S Shephard, to Anglican missions. The ship will also carry their mission supplies as well as those for the hospitals.

Rt. Rev. A. L. Fleming, Bishop of the Arctic, is also going back this year, but he won't join the ship in Montreal. He will go aboard when the Nascopie arrives at Churchill as will J. W. Anderson, inspector of ports for the Hudson's Bay Company.

Officers To Retire

This year's trip to the Arctic is the last for Nascopie's veteran skipper, Capt. T. F. Smellie, of Vancouver, and Capt. J. C. Gauthier, of Montreal, special pilot for the Nascopie, who has sailed with Captain Smellie for more than 15 years. He is retiring after 39 years of pilotage service. Capt Smellie retires at the end of the trip.

Unlike the blacked-out war years Nascopie will steam into the Arctic this year with her lights ablaze and her guns gone. Both anti-submarine and anti-aircraft guns have been removed by the navy. Her only wartime touch will be the grey-coated hull which Admiralty regulations declare must still be retained.

The man with the headache job is S. J. Stewart, purser of Nascopie, whose task it is to stow the cargo into the vessel's holds. He admits there is a spot for every bit of the massive collection of goods jammed into the freight shed.

They've been together at Nascopie's helm for more than 15 years, but Capt. T. F. Smellie, O.B.S., the skipper, and Capt. J. C. Gauthier, of Montreal, special pilot, are coming ashore at the end of this trip. Both are retiring after years of service.

Water Hose Mines Arctic Gold

AKRON, Ohio (U.P.)—One of the world's most unusual mining operations is being carried on in Alaska's frozen wastes. A special one-inch water hose, developed by the Goodyear Tire and Rubber Company, is exploiting gold and other mineral deposits to depths of nearly forty feet in the Arctic Circle, Alaska and the Canadian Yukon. Pipes are driven to the level of the proposed operations and the surface end linked with the hose to a supply of cold water, which is pumped into the frozen ground. Officials say that in about ten or fifteen days the frozen ground is softened sufficiently to be workable.

Alaska's Wealth

Alaska mines to date have produced minerals valued at some $900,000,000; of this value gold accounts for 70 per cent, copper for 25 per cent and silver, lead, tin, tungsten, chromium, platinum metals, antimony and mercury for the rest.

Salt Pork and Black Whale Meat Solve Eskimo Red-Points Problem

ANCHORAGE, Alaska, June 6, (AP) — A schoolteacher among the Eskimos says fear of a Japanese invasion of the Aleutians early in the war has helped solve the Eskimos' meat shortage.

A kind of sausage made then out of salt pork and coarse, black meat from whales, stuffed into cloth sacks and stored in large quantities, proved so tasty they now eat it as part of their regular diet.

"Threats of war shortages are now gone," Mrs. William Thomas, a teacher at Quinhagak, on Kuskokwim Bay, said today. "But they still make and eat that 'sausage.'"

War has changed Eskimos in other ways. Extra money from war work has brought improvements in dress and diet, but not in living accommodations.

"Many now bake bread, rolls, and cookies, instead of eating the soggy pancakes of their ancestors," she said. "Their favorite drink is tea. It first became popular when some cannery operator gave them tea in part payment for wages. Now their co-operative stores carry large stocks."

The younger generation has given up much native garb for mail-order clothes, but native-made seal gut raincoats, boots, mukluks, and parkas are still in use.

Dog Sleds Pass Army Tests on Western Front

Colonel Tells How Huskies Hauled Casualties and Supplies in Heavy Snow

The Christian Science Monitor

MANCHESTER, N. H., March 20—Famous sled dogs and drivers who were famous in private life are writing new pages in the story of modern Army rescue activities on the battlefields of the Belgium frontier. It is the latest achievement of the North Atlantic Division of the Air Transport Command, probably best known for delivering fighting planes, equipment, and manpower to the fighting fronts and flying home those injured on the battlefronts.

When Lieut. Gen. Omar N. Bradley's Twelfth Army Group was faced with the difficult task of getting injured men out of snowed-in battlefields, it was natural for the Army to turn to the North Atlantic Division of the Air Transport Command. For in building up its regular trans-Atlantic plane service, the N. A. D. had developed a complete Arctic Search and Rescue Section headed by Lieut. Col. Norman D. Vaughan, with headquarters in Manchester.

Colonel Vaughan, who made an 1,800-mile sled dog journey while with Admiral Richard E. Byrd's Antarctic expedition of 1928-30, has in his section famous sled dogs, internationally known drivers, and the latest in Arctic equipment.

Answer Call for Help

Colonel Vaughan, his dogs, men and equipment, responded to the call to help rescue injured American soldiers from the deep snow of Belgium.

At Presque Isle, Maine, Colonel Vaughan assembled 25 dog team experts, 160 Eskimo huskies, and some two dozen dog sleds and toboggans. A few days later, American soldiers in Belgium blinked in surprise. Out of the sky they saw a fleet of C-47's land on an airfield and discharge a cargo of sled dogs, drivers, and equipment. Colonel Vaughan took charge of what have become known as "Vaughan's Voyageurs." He and his associates—trained for noncombattant Arctic rescue—braved enemy fire, deep snows, and subzero weather to rescue stranded soldiers and take them to base hospitals.

Less than four days after the call for aid was received at N. A. D. headquarters here, Colonel Vaughan, his men, and dogs were on the Western Front.

The dogs there include Togo, a fast Siberian that was the lead dog in the team that won the International Sweepstakes race at Quebec, and Wolf, another Siberian lead dog that ran in the New England sled dog championship, visited Greenland with Colonel Vaughan, climbed Mr. McKinley in Alaska with Brad Washburn, and then went to Goose Bay and Baffinland. Wolf has six sons with him on this mission.

The list of drivers and men in "Vaughan's Voyageurs" includes many well-known names. Colonel Vaughan, in addition to having served with Admiral Byrd, won the New England Dog Club Race in 1932 and represented that organization in the Olympic Race at Lake Placid, N. Y. Colonel Vaughan has participated in many dramatic rescues, including one that served as the basis for Capt. Ernest Gann's novel, "Island in the Sky."

Arctic Rescue Expert

Acme

Lieut. Col. Norman D. Vaughan

There is Capt. William L. Shearer of Boston who has trained many championship sled dog teams.

Lieut. Donald Shaw of Concord, N. H., who served as a ski instructor with the Hannes Schneider Ski School on the Eastern Slope of New Hampshire at North Conway, first saw Arctic service with the Army in Greenland in 1941.

Capt. Peter Hostmark of Seattle, Wash., is a native of Norway. An expert skier, Captain Hostmark once went on a dangerous expedition to an isolated region near Spitzenberg, Norway. He started with four companions. Only Captain Hostmark returned.

Master Sergeant Richard Moulton of Meredith and Wonalancet, N. H., was also a member of the Byrd Antarctic Expedition from 1939 to 1941. He knows dogs and Arctic conditions. Last winter Sergeant Moulton drove a dog team to the scene of RCAF plane crash in the wastes of Labrador and brought five fliers back safely.

Staff Sergeant Louis P. "Tony" Colombo of Brooklyn, N. Y., is also a veteran of Byrd expeditions. He was a dog team driver with the Admiral in 1934 and 1935. Since, he has seen service in Baffinland and Greenland under the command of Col. Bernt Balchen.

Pfc. Arthur B. Bacon of International Falls, Minn., formerly was a lumber jack. Staff Sergeant Huel S. Dean of Little Rock, Ark., is a veteran mountain climber and hunter. Corp. George E. Esslinger of Kabetogoune, Minn., served as a guide in northern Minnesota. Sergeant Willard E. Gregg of Camp Rimini, Mont., a farmer, has wide experience with dogs and snowshoeing. Staff Sergeant Robert J. Lucy of Detroit, has had experience with Arctic life, tractors, and snow equipment.

These are some of the men assembled by the Search and Rescue Section, who have tackled a task of mercy on the fighting fronts of Belgium, an undertaking without precedent in the annals of warfare.

Colonel Vaughan wears a special Congressional Medal and the Legion of Merit Citation.

Colonel Vaughan received the Legion of Merit award for participating "in numerous search missions by airplane for lost American and Royal Canadian Air Force fliers. On one occasion he made a hazardous solo journey by dog sled on the Greenland Ice Cap to the scene of the crash landing of two B-17 and six P-38 airplanes. There was danger that the enemy would discover these wrecked airplanes, which were visible from the sea, and get possession of secret equipment."

It was in 1914, when he was nine, that Colonel Vaughn started his dog team driving by hitching up his father's German shepherd and teaching him to haul sleds. That started him on his outdoor winter camping excursions when he would go into the woods for periods of days and live in the wide open fighting off winter storms.

Trip to Antarctic

Most of the Colonel's spare time during winter months has been spent driving and training sled dogs. One of his biggest adventures was his trip with the First Byrd Antarctic Expedition when he spent 22 months in the vicinity of the South Pole.

Following his entrance into the Army he was the first officer to go to Goose Bay, Labrador, and commanded that post until relieved by the now Brig. Gen. A. D. Smith. He then went to Greenland and to a remote station in Baffinland where he supervised the building of the station and stayed 11 months.

It was then that he was given the job of organizing the Search and Rescue Section of the Division. Starting from scratch, in a little over a year he had an efficient working outfit and during this time he and his men were responsible for the saving of hundreds of lives.

The Unit now has experienced crash boat operators, mountaineers, skiers, radiomen, dog drivers, mule skinners, trailsmen, woodsmen, pack dog drivers, parachute experts, and others. They have dog teams, a number of mules, crash boats to be used for fliers down at sea, and a great deal of other Arctic equipment.

CLIMATIC MAPS AID WORLD WAR PLANNING

Eighty climatic maps showing average conditions of rainfall, temperature and humidity for every month in the year on each of the six continents have been developed by the Climatology Unit of the Quartermaster Corps and are now being published by the Army Map Service, the War Department reports. They include climatic maps of the oceans on a seasonal rather than a monthly basis and a detailed map of the United States on a seasonal basis in addition to the monthly basis.

The maps show eighteen different clamatic zones in colors and combinations of colors and lines or colors and dots. Eight basic temperature zones are depicted, five being divided into dry, humid and wet phases, according to the amount of rainfall they receive. Each temperature zone extends 18 degrees F., from its coldest to its warmest boundary.

In order to determine significant zones accurately it was necessary for the Climatology Unit to conduct a thorough study of world climates for every month in the year. For more than eighteen months climatic data were assembled from all available sources; figures from thousands of weather stations in all parts of the world were tabulated, then carefully plotted on base maps of the six continents for each month of the year.

Through consideration of such factors as temperature, humidity, rainfall, snowfall, wind chill and other climatic conditions, a monthly zone system for the entire world was constructed with particular significance for determining military clothing, shelter, drainage and equipment requirements.

Charts Indicate Clothes for GIs

By ROBERT N. FARR,

Science Service Staff Writer.

WASHINGTON.—Climatic conditions can either be an ally or enemy of the G. I. Joes according to the intelligence with which they are contended. New climatic stress charts help our fighters to cope with the forces of the environment by revealing how much clothing they need to protect them from the elements and just how much work they can be expected to do under any given set of conditions anywhere in the world.

Translated into military terms, this information helps the Quartermaster Corps to plan water and food supply, and design clothing to be worn. These charts are the result of almost a year of intensive research by Maj. Paul Siple, well-known explorer, and other scientists with the Office of the Quartermaster General.

The values indicated in the climatic stress charts are based upon the fact that the human body produces a given amount of heat, and that for life to be sustained, this heat must be lost at a rate equal to the rate of production. If it is not, the body temperature will either rise or fall until death occurs.

Factors taken into consideration in the calculations are external vapor pressure, wind velocity, temperature, the angle of the sun, and the kilogram-calories expended in doing work.

Global warfare has made necessary military operations under all conditions of climate, and the charts provide a rapid solution to the problems which arise in preparing men, most of them acclimated to the temperate zone, for fighting in the heat of a Pacific island or the cold of the Aleutians.

Alaskan Tin

Discovery in 1944 of two tin-bearing veins in the western part of Seward peninsula, Alaska, leads to the belief that important reserves of this essential metal may be found in the area.

HONOR DISCLOSES BYRD'S WAR TASK

President Decorates Admiral for Naval Aviation Survey of Southeast Pacific Isles

WASHINGTON, Jan. 11—Rear Admiral Richard E. Byrd, polar explorer, whose war activities have been shrouded in mystery, was decorated with the Legion of Merit at the White House today by President Roosevelt for "exceptionally meritorious conduct" and "outstanding services" on a naval aviation mission in the Pacific.

The President disclosed that Admiral Byrd had been surveying islands in the Southeast Pacific for Naval aviation.

The citation read:

"For exceptionally meritorious conduct in the performance of outstanding services to the Government of the United States while in command of a special Navy mission to the Pacific from Aug. 27 to Dec. 5, 1943. In this service, Rear Admiral Byrd exercised fine leadership in gaining the united effort of civilian, Army and Navy experts.

"He displayed courage, initiative, vision and a high order of ability in fulfilling a mission which will be of great value to the national defense and the Government of the United States."

Explaining that Admiral Byrd's "wartime duties have been of a very confidential nature," the Navy stated:

"His mission for which he is being decorated, was in connection with aviation. He has previously received a Letter of Commendation from Secretary of the Navy James Forrestal for a special assignment in the South Pacific in 1942.

"His duties have twice taken him to the Pacific and he has just returned from the battlefront in Belgium where he was studying the tactical support of the ground troops by aviation."

The Navy added that Admiral Byrd had been on aviation duty under Admiral Ernest J. King, Commander in Chief of the Fleet, and would soon return to the Pacific.

The Polar Times

Published June and December by the AMERICAN POLAR SOCIETY, Care American Museum of Natural History, Central Park West at 77th Street, New York, N. Y.

AUGUST HOWARD, Editor

THE POLAR TIMES highly recommends "The Polar Record," published January and July by the Scott Polar Research Institute, Cambridge, England.

The American Polar Society was founded Nov. 29, 1934, to band together all persons interested in polar exploration. Membership dues are one dollar a year, which entitles members to receive THE POLAR TIMES twice a year.

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Peary's Daughter Addresses Society

WASHINGTON, April 6

The thirty-sixth anniversary of Admiral Peary's discovery of the North Pole was marked here at 8 p. m. today by the Washington Chapter of the American Polar Society. The explorer's daughter, Mrs. Edward Stafford, spoke at the meeting in the Willard Hotel.

Mrs. Stafford is the former Ahnighito Peary, "the snowbaby," born in the Polar regions and given her descriptive name by the Eskimos because her skin was so white.

Other speakers included Hugh C. Mitchell of the U. S. Coast and Geodetic Survey; Dr. Ruth Gruber, field representative of the Interior Department.

Color motion pictures of the east base party of the U. S. Antarctic Service were shown by Comdr. Finn Ronne, USNR. Col. Clifford C. Gregg, now on leave as director of the Chicago Natural History Museum, presided.

Polar Society Elects C. H. Stoll President

NEW YORK (AP)—Charles H. Stoll of Hicksville, N. Y., was elected president of the American Polar Society by a mail vote, it was announced April 9 at the Spring meeting of the organization. He succeeded Russell J. Walrath of Westfield, N. J., who was elected treasurer.

Founded 10 years ago as a clearing house on polar matters, polar exploration and related sciences, the society claims members throughout the United States and in 14 foreign countries. Headquarters are at the American Museum of Natural History.

Mr. Stoll financed and directed the Stoll-McCracken Siberian Arctic Expedition of 1928, which used the schooner "Morrissey" under Capt. Bob Bartlett and brought back the Pacific walrus group, which the American Museum of Natural History had never been able to obtain.

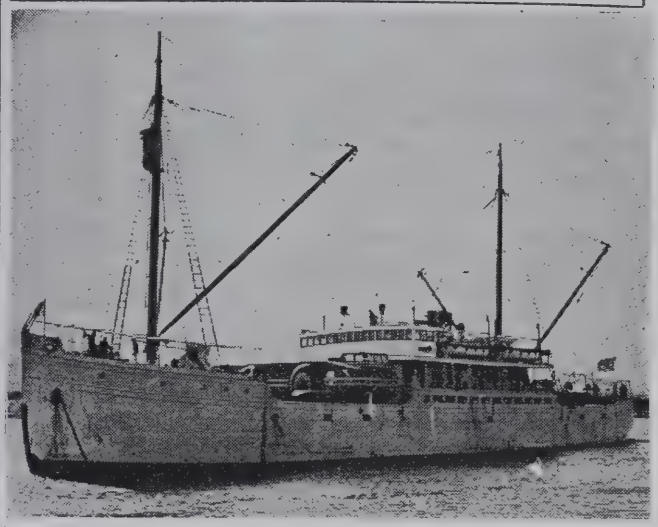
HAILS POLAR DISCOVERY

Royal Astronomer Calls Findings Vital to Air Navigation

LONDON, May 27 (Reuter)—The discovery of the true position of the magnetic North Pole—some hundreds of miles from where it was believed to be—by the crew of the British Lancaster Aries is very important for polar navigation, the Royal Astronomer Sir Harold Spencer Jones said today.

"There is a great future in polar navigation," he said, "because flying over the Pole can shorten the distances to many places in West and North America, and it is a great help if the pilot is certain where his compass is pointing." Sir Harold added that the discovery was of special interest to him, because it was in good agreement with the conclusions that he had reached from his own calculations.

S.S. NORTH STAR BACK FROM WAR



S.S. NORTH STAR, recently returned by the Navy to the Office of Indian Affairs to continue its pre-war service of carrying supplies to Alaska.

THE North Star, near-legendary polar vessel, has been returned by the Navy to Interior's Office of Indian Affairs. Constructed to withstand floating ice, it is the only American ship available to carry much needed supplies as far as Point Barrow at the extreme northern tip of Alaska.

Built in 1932, the North Star has had a memorable career. Twice it went with Admiral Byrd and the Bear to the Antarctic. In 1942 it was assigned to the U. S. Coast Guard and carried war supplies through ice-infested waters of the North Atlantic and Arctic Oceans. It can withstand pressure of ice floes due to its construction and to a sheathing below the waterline of ironbark, a strong Australian wood.

Recently reconditioned at Philadelphia by the Navy Department, it has gone to the West Coast. One of its three summer Alaskan voyages will take it to the distant port of Point Barrow. There Interior Department women nurses gather medical and other supplies for their long rounds by dog sled to remote Eskimo villages.

The vessel carries about 2,000 tons of freight—coal, lumber, machinery, school and medical supplies. It stops at about 40 ports. At some of the ports of call there are no docks, and cargo is unloaded by barges and lighters.

While primarily a cargo ship, it has commodious accommodations for about 25 passengers. It transports teachers for the Alaskan schools, doctors and nurses, scientists, and other field employes. It picks up natives who need hospitalization—cripples, blind people, and those requiring surgery and medical care.

During its varied career the North Star has experimented many precarious adventures. On one of its Alaskan voyages it ran aground, due to a change in the channel of the shallow Kuskokwim River, which flows into Bering Sea. A crack several inches wide opened the whole length of the deck, and the passangers worried lest the vessel fall apart. But it withstood the strain without further damage.

The North Star is a 1,200-ton Diesel-powered vessel, 225 feet long with a 14-foot draft. It is said that many interesting legends have gathered about it during its voyages on the Seven Seas. It is on its way to becoming one of America's historic ships.

Habitat of Platinum Foxes

Fox farmers and biologists are unable to account for the fact that the rare platinum foxes, a variation of the blue fox, are found on the Bering Sea side of Attu Island, while on the Pacific side only the ordinary blue foxes are found.

Ice floes off rugged Ellesmere Island, typical of Arctic waters through which the Saint Roch *had to make its way.*

Northwest Passage

By JAMES MONTAGNES

THINK Magazine
JUNE 1945.

The record three-month voyage of schooner Saint Roch *through Passage indicates post-war development possibilities of Canadian north.*

The Northwest Passage was one of the dreams of western civilization for four centuries. It was to furnish access to the South Seas, to the fabulous Isles of Spice and to Cathay. After the discovery of America, men followed every watercourse in the New World that led westward in the hope that it would prove to be the long-sought passage. Many left their names in the northern wastes of Canada—Hudson Bay, Baffin Island, Melville Sound, Frobisher Bay, the District of Mackenzie—yet incredibly, it was not until the twentieth century that the Northwest Passage became a reality. Even then Roald Amundsen needed three years (1903-06) to accomplish the feat.

Not until our times did a ship complete the Passage again, when the Royal Canadian Mounted Police schooner *Saint Roch* made the voyage from Vancouver to Halifax in twenty-eight months, between 1940 and 1943. The following year the ship managed to make the return trip in eighty-six days. It became the first vessel to make the voyage in one season.

As Canada claims ownership over all the Arctic islands and waters which lie to the north, it must maintain sovereignty over this whole territory. Consequently the Royal Canadian Mounted Police patrols this vast area, and the Canadian Government sends its ships to the little-known waters of the north.

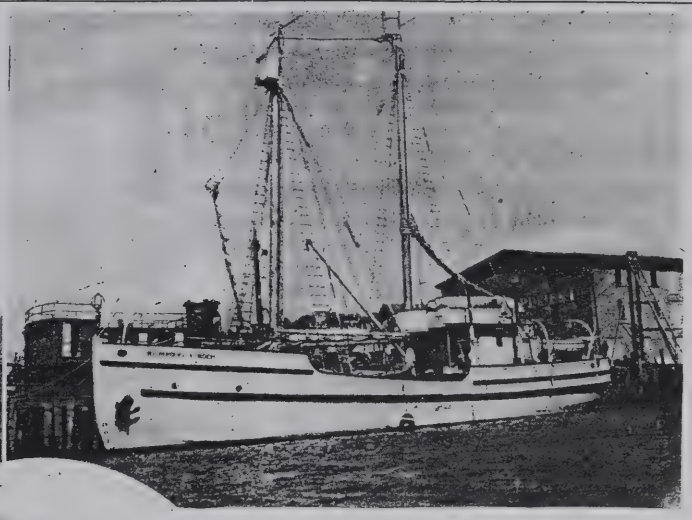
© Hagstrom Map Co.

Map of the Canadian northland, showing route followed during record 86-day passage, Halifax to Vancouver.

The *Saint Roch* was built to buck the Arctic ice fields. It is timbered two-thirds more heavily than normal craft of her type, has a sheathing of copper over her timber, and over that a layer of Australian iron bark, the only wood known to withstand the crunching of ice. The vessel is one hundred feet long, is equipped with the latest diesel engines, with a gyrocompass and with modern radio facilities. It has been in service in Arctic waters since its outfitting at Vancouver in 1928. Its captain is Danish-born Henry A. Larsen, a Mountie recently promoted to sub-inspector.

Larsen and his superiors had long sought to make the voyage from one coast of Canada to the other. The first voyage was begun in 1940. It took more than two years, two winters being spent with the vessel frozen among the Arctic islands, and one winter near the Magnetic North Pole on Boothia Peninsula. The vessel started out on the return trip last year, prepared to take another three years, if need be, to complete the voyage, but with luck and the skill of the skipper, the trip was made in eighty-six days, one season. From Halifax Larsen followed the regular route through the Straits of Belle Isle to Labrador and up the Labrador coast to Baffin Island. He turned south of Bylot Island to reach Lancaster Sound. He then steered westward through ice floes and uncharted waters to touch at Melville Island, veered south between Banks and Victoria Islands to Amundsen Gulf at the top of the Canadian Arctic mainland, and skirted the Arctic

Below: Isolated post of the Royal Canadian Mounted Police on Baffin Island.



The Saint Roch, *100-foot diesel-powered schooner especially built to withstand crunching ice floes.*

Right: "Mounties" and Eskimos at outpost on Ellesmere Island

mainland coast to Alaska and finally south through the Bering Straits and to Vancouver.

It was not an easy voyage. At times Larsen thought it would be necessary to winter in the north, and from Baffin Island he had brought along Eskimos for just such an emergency. Ice conditions were good, however, and his experience in Arctic waters served him well and the voyage was completed in one season.

Regular trips along this route during the summer months may become possible for small schooners like the *Saint Roch,* but commercial traffic is not expected to become an important factor in this region. Ice conditions govern all navigation, and they must be favorable; a vessel must arrive at a certain point at exactly the right time of year to permit passage in one direction or the other. Ice conditions also make it well-nigh impossible to chart the coast accurately or to take soundings, and so for many years such a passage would be along routes largely unmarked or uncertain. Experience in Arctic waters would be a prime requisite for the captain and the crew to be able to complete the trip in one season.

Because of the fur and mineral resources of the islands, however, small vessels traveling between settlements would serve as a link with the rest of Canada. Yet there are times when ice conditions prevent any vessel from reaching certain settlements and then supplies have to be brought in by airplane.

The voyage of the *Saint Roch* shows the way to further exploration and exploitation of the whole northern region. In view of the possibility of a top-of-the-world air route from America to Europe and Asia, northern Canada takes on added importance, and the day may be near when there will be air bases there, supplied by sea and air. Radio stations will be established, the settling of Eskimos in the northern islands will be planned and encouraged, and the whole region may become inhabited to some degree. Canada may plan for a future in its vast northland, which begins at Hudson Bay and ends at the North Pole.

Along the route of the Saint Roch. . . . *Snow-covered mountains of Baffin Island.*

Russia Builds an Arctic Empire And Woos All Northern Peoples

Maurice Hindus Says Canada Is 'Most Favored Nation,' Norway Is Highly Esteemed; Prospects Are Bright for Lasting Amity With Finns

By Maurice Hindus

New York Herald Tribune

Russians are growing increasingly north-minded. They are the most north-minded people in the world. They believe in the north as proudly and reverently as does Vilhjahlmur Stefansson, whose "Friendly Arctic" has in no small measure stirred and strengthened their faith in the north. This faith is destined to have, and is already having, far-reaching consequences on Russia's internal life and on her international relationships.

Russia is building a northern empire. This is no longer an experimental project. It is a vast enterprise, one of the largest in the world. Russian prospectors and scientists have uncovered great wealth in the north, in lands which for centuries man had deemed too wild, too barren, too remote for human abode. Coal, oil, copper, silver, gold, nickel and a multitude of other minerals are already being mined there, and local native industries are being started.

In the last eighteen years new towns and villages have been rising in Russia's north, both in Europe and in Asia. New factories have been put up, new farms have been cultivated underground and on the surface of the earth, new highways have been laid, new railroads have been built. The northern town of Norylsk boasts one of the largest nickel factories in the world. The town now has direct telephone connections with Moscow.

In the tragic years of 1941 and 1942, when Russian armies were rolling back, abandoning cities and factories, Russian industry in the Urals and Siberia was furnished with many indispensable metals by Norylsk and other northern towns. Throughout the years of war and despite the extraordinary demand for planes and ships for military purposes, both shipping and air travel, instead of being curtailed, have been expanded all over the Arctic territories.

Russia Wooing the North

Russia is wooing the north, taming it, stripping it of the terror with which an uninformed world once endowed it, coaxing out of it not only romance and adventure but riches and cheer. I know engineers who are stationed in some Arctic town and who when they make flying business trips to Moscow soon sicken of "civilization" and yearn to fly back home. "You have to love the north," I heard one of them say, "if you expect it to love you, and once the love is mutual you have a happy time."

Because Russia is so conspicuously north-minded she has a special regard for the peoples of the north and for her northern neighbors. In the harsh years of the first two five-year plans these peoples were treated with special consideration. Russian writing on these peoples, whether Russian or non-Russian in race and nationality, is distinguished by a mellow sentimentalism that is lacking in writing about other parts of the country. Neither political ideology nor the pressing issues of the moment mar its human and lyrical quality.

I am convinced that one reason the Russians write of Norway with such warmth is because it is a northern country. No war-smitten people have roused more tender writing than the Norwegians. I believe that Finland and Russia will come to a workable relationship with each other because Finland, among other things, is a northern land, though the Russian armistice terms strip it of Arctic territory it once held. Unless Finnish Russophobe and pro-German groups fail to make the most of the leniency Russia is evincing toward their country, there should be no more serious tilts between Moscow and Helsinki.

The Finns are a sturdy, strong-headed, cultivated people, and their gift of making themselves magnificently at home in the north rouses Russian respect and admiration. A Russian guerrilla leader told me that once while in a forest in the north, searching for Finnish diversionists, he heard something fall with a crash from a near-by tree. It was a Finn who jumped down on his skis and glided away so fast that the guerrilla leader barely had a chance to look around before the man was completely out of sight. "A deer," he said, with admiration, "couldn't cover distance any faster."

Canada a Favored Nation

Canada has attained the status of a favored nation in Russia. Interest in Canada is mounting steadily in Moscow newspapers. I have often wondered at this sudden interest in Canada, a country which in pre-war days had shown no particular regard for Russia and whose conservative governments had displayed at times hostility toward Moscow.

There are, of course, some obvious explanations. Canada is becoming industrialized, and in the post-war years, if trade and credit terms are agreed upon, will be in a position to sell Russia no small amount of manufactured goods. There may even be a chance for Russian buyers to benefit from the competition between American and Canadian manufacturers.

No doubt, Leolyn Dana Wilgress, Canada's astute and unusually able Minister in Moscow, and some of his brilliant assistants, not military but civilian, have had something to do with the cultivation of good will in official circles in Russia. Likewise Canada, though an immense and unusually wealthy country, does not even pretend to be a big power. Russians admire Canada's modesty in her international diplomacy.

Russians, of course, don't understand why Canada, possessed of so much uninhabited land and extraordinarily rich in natural resources, is not even seriously attempting to enlarge her population. Their collectivist psychology makes it difficult for them to appreciate the maladjustments, economic and social, which Canadians say would follow in the wake of mass immigration to their country.

Yet, in my judgment, the chief reason for Russia's growing interest in Canada and the favorable press Canada has had in Russia is that Canada is one of the leading northern countries in the world, with a vast stake in the Arctic. While Russia controls about one-half, Canada controls about one-fourth of all Arctic lands. In other words, three-fourths of Arctic territory are in the possession of Russia and Canada. With her long-range view of life, of history, of the future, with her faith in the immense possibilities of the Arctic, Russia wants to have a friendly neighbor in the country which, next to herself, has the largest territorial stake there.

The Arctic is one part of her gigantic empire in which Russia is resolved to cultivate particular friendship with all her neighbors so as to prevent the rise of the disquiet and the conflict that she is facing along her other far-flung borders.

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WORLD'S NORTH TIP ROAMED BY TRIBE

Russian Scientist Says Nganasan Go Farther Than American Eskimo

Back from a sojourn among "the most northerly people in the world," Andrei Popov, member of the Institute of Ethnography of the Russian Academy of Sciences, writes of his experiences with the Nganasan, a small tribe known in pre-revolutionary literature as the Tavgin.

The Nganasan inhabit the Taimyr Peninsula in the extreme north of Siberia. In their wanderings they reach higher latitudes than any other tribe inhabiting the Arctic regions, going farther than the Eskimos of North America, says Professor Popov in a Russian information bulletin.

In 1917, at the time of the October revolution, the Nganasan were still grouped in gentes, or clans. Until quite recently the home-made bow and arrow was their chief hunting weapon: hunting and reindeer breeding were the principal means of subsistence.

Modern Methods Introduced

The Soviet State has supplied them with modern weapons for hunting and equipment for fishing. They have begun to organize co-operatives for reindeer breeding and for hunting, which have considerably raised the output of these pursuits.

The reindeer serves as a draft animal during the periods of wandering, and provides fresh meat. The frequent periods of scarcity and hunger formerly endured by the Nganasan are a thing of the past.

Schools for children and for illiterate adults have been opened at the wintering camps and a number of medical centers have been set up. In their summer wanderings, the people are accompanied by medical workers.

"One of the most interesting results of my trip is a collection of hitherto completely unknown Nganasan fairy tales, legends, songs, stories and riddles. Twelve long epic poems, fruits of the unwritten literary art of the Nganasan people, which I managed to write down in full, are of great artistic value. The Nganasan legend of the creation of the world, which I heard from local storytellers and wrote down, is most interesting and original.

"The high artistic level of Nganasan oral folklore and its content, which includes many elements of the heroic epic, lead us to suppose that the modern Nganasan comes from a people much more numerous than the present tribe; a people with a very high culture.

"A number of points in the material I collected confirm the fact that the distant ancestors of the Nganasan did not always live in the Far North, but inhabited a region of southern Siberia, in the Sayan foothills. When they migrated to the north they mingled with an aboriginal tribe of Paleo-Asiatic peoples, traces of whom still remain at many places in the northern part of the continent of Asia. This mingling was the beginning of the modern Nganasan."

Professor Popov also managed to obtain a large number of ancient religious objects dating back to the time when the religion of the shamans was still widespread.

Russians Study Bering Races

LONDON, June 27 (AP)—A Russian archaeological expedition from Leningrad is en route to the Chukotka Peninsula in Siberia, just opposite Alaska, to do excavation work expected to "clarify many questions in connection with the population of North America," the Moscow radio said today. There long has been a theory that prehistoric North Americans migrated from the Asiatic mainland across a land bridge since vanished into the Bering Sea.

GREENLAND TRADE WITH U. S. IN DOUBT

But Danish Officials Expect Direct Shipments for Two or Three Years More

The new patterns of direct trade that have developed between the United States and Greenland during the war are likely to continue "of necessity" for at least two or three years, Tage Nielsen, general manager of the Greenland section of the Danish Consulate here, said May 10. The liberated Danish Government will decide whether or not such new American trade relations with its northernmost possession may endure.

Since 1774 Greenland's trade has been a Danish Government monopoly. Before the war it was controlled through the Greenland Trading Company headquarters in Copenhagen but during the five years of Denmark's occupation, a special agency, the Greenland Section of the Danish Consulate in New York, was established by Henrik de Kauffmann, Danish Minister to the United States, to direct all of Greenland's wartime trade.

During the war the United States and Canada helped the 20,000 Greenlanders by supplying 1,600 different items, from flour to sewing needles, for which they previously had been dependent on Denmark. This country's annual exports to Greenland averaged 9,000 tons, with a value of $1,000,000; those of Canada, 6,000 tons, worth $500,000, according to Mr. Nielsen.

In return, Greenland provided several critical commodities for the Allies and also for Portugal. From "the world's only cryolite mine," Greenland supplied the United States and Canada, primarily the former, with this product for the manufacture of aluminum.

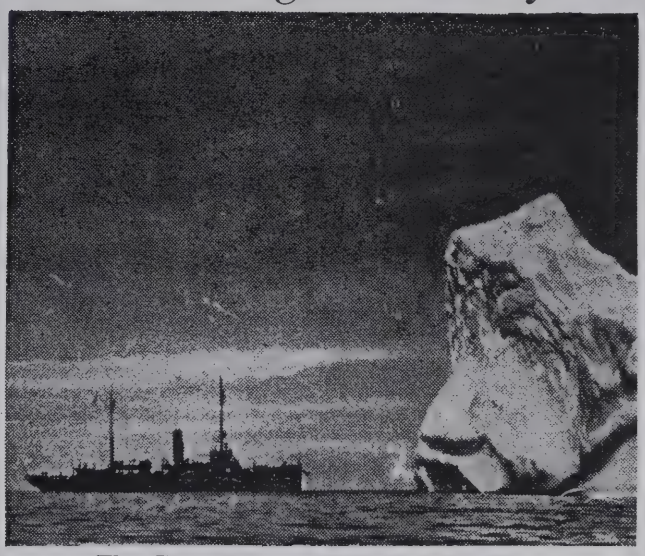
Greenland annually exported 4,500 tons of codfish to Great Britain and Portugal until last year, when two-thirds of this export came to the United States, reportedly for relief use by the Army. Greenland sealskin helped relieve our leather shortage, and Greenland eiderdown went into our manufacture of aviators' vests.

Before 1940, both Canada and the United States imported Greenland's cryolite, but the ships left here "in ballast," Mr. Nielsen said.

The "open door" wartime trade policy of Greenland will endure, certain informed circles predict with the Danish Government still in control, to prevent foreign exploitation of the natives."

According to this authority, Denmark would save shipping costs by continuing to allow direct foreign trade to Greenland instead of detouring it in the pre-war way through Denmark. At any rate, as long as the depressed economy of Europe prevents immediate return to the old trade pattern, the Greenland section of the Danish Consulate in New York expects to continue its guidance and control of Greenland's trade directly with the foreign countries concerned.

Cutter Sights Its Prey



This Huge Iceberg Will Sink No Ships

Size of this huge mass from the Arctic is evident when compared with the cutter that looks like a toy boat beside it.

11 Yanks Marooned in Greenland; Planes Supply Them for 6 Months

NARSARSSUAK, Greenland, (U.P.) Eleven American soldiers have been imprisoned by ice and snow at Skjoldungen on Greenland's bleak east coast since Jan. 8. Plans have been made to rescue them, when the ice thaws. Airplanes have supplied them since January, when a slide buried their stocks, shelters and radio power plant under twenty feet of snow. They were stationed there for weather observation.

Col. Eugene H. Rice, commander of the Greenland Base Command, with headquarters here, told of their battle against death and the valiant efforts to relieve them.

Efforts to evacuate the men by air failed, but supplies dropped by parachute enabled them to resume operations and live in comparative safety.

A six-day storm caused the snow slide. On Jan. 13, when the storm had abated, a plane dropped urgently needed equipment. By that time the men had recovered enough food to last three months.

They also uncovered a generator, but the building that had housed it was gone and its only protection against Arctic gales were fifteen-foot walls of snow. The men had had to dig it out to send their plea for help.

They sent hourly weather reports until the pressure on the power unit forced them to cut down to one report every three hours.

A power unit to replace the Diesel plant buried by snow was dropped by parachutes in three sections, and within twelve hours the marooned men had it in operation. It is still running smoothly on gasoline dropped by planes.

The eleven men have all been commended for outstanding performance under stress.

Icebergs Give Extra Task to U-Boat Patrol

Coast Guard Is Maintaining Vigil on 33d Anniversary of the Titanic Disaster

WASHINGTON, April 28 (AP).—Greenland's mammoth icebergs are starting their seasonal drift toward Atlantic steamship lanes, where thirty-three years ago today one of them caused the greatest disaster in the history of ocean travel.

Fifteen minutes before midnight on Sunday, April 14, 1912, the British liner Titanic, speeding from England to New York on its first voyage, collided with a large iceberg. Two and a half hours later the ship sank with the loss of 1,513 lives.

The disaster shocked a complacent pre-war world into successful concerted action. Under international agreement, the United States Coast Guard in 1914 took over the job of guarding North Atlantic shipping against the iceberg peril. That service is famed for a record of not a single casualty in the patrol area since its inauguration.

The regular international patrol has been suspended because of the war. However, the Coast Guard is helping protect Allied ships this spring from "ice dreadnoughts" as well as from Nazi submarines. Coast Guard combat cutters and planes patrol parts of the ice area and send out radio reports.

The electronics people say that post-war liners probably will be equipped with radar to help detect icebergs. Passenger planes flying the Atlantic also will broadcast weather conditions.

The iceberg season usually begins in mid-March and is over by the end of June, but in 1939—for the first time in the history of the patrol—ice was a menace in August. The icebergs are formed by large fragments breaking off Greenland's glaciers. Some are 500 feet long and tower 300 feet above the water.

GREENLAND TRIP PLANNED

Danish Scientific Survey Halted by 1940 Occupation

COPENHAGEN, June 11—A scientific expedition to explore Greenland's mineral wealth, originally scheduled to leave Denmark in 1940 but halted by the Germans' occupation of the country, will proceed in the early spring of 1946, it was disclosed tonight when Knud Oldendow, director of the Greenland board, returned from Stockholm.

In Stockholm Mr. Oldendow negotiated with Professors Steenskiold and Backlund, Swedish geological experts, to lead the expedition. They will determine whether there are enough coal, oil, metals and other valuable resources to make their exploitation pay.

GREENLAND TRIP BEGUN

First Danish Ship in Five Years Leaves for Island

COPENHAGEN, June 26—For the first time in five years, a Danish ship—the schooner Swordfish—left Copenhagen today for Greenland.

It carried a mixed cargo but no passengers. The first passenger ship will sail on Thursday. It is the Disko, which has been rebuilt to carry about 115 passengers. Among the passengers will be several explorers, scientists and artists, as well as native Greenlanders returning home after five years of "imprisonment".

Danish King Proclaims Freedom to Parliament

Cabinet Approves Pact for U. S. Bases in Greenland

COPENHAGEN, May 9 (UP).—King Christian X appeared before the Danish Parliament today for the first time in more than five years and proclaimed Denmark's liberation from Nazi oppression.

He spoke before a special session at which Premier Wilhelm Buhl said Denmark wanted to join the United Nations and that his newly formed Cabinet has approved a Danish-American agreement for the establishment of military and naval bases in Greenland.

Rear Admiral Felix Gygax admires Peary Polar Expedition Medal he's just presented to Commander D. B. MacMillan in Boston, for part he played in discovery of the North Pole. Capt. Bob Bartlett (center), who was also with Peary, got the same award.

Matthew A. Henson, 79, sole living member of the Peary North Pole expedition of 1908-9 who actually reached the Pole, receives a special medal commemorating the expedition from Vice Admiral Herbert F. Leary, Commander of the Eastern Sea Frontier. Henson lives at 246 W. 150th St.

PEARY POLAR AIDES GET HONOR MEDALS

Awards Are Made to Bartlett and MacMillan 36 Years After Success in Arctic

BOSTON, May 25—Thirty-six years after they helped Admiral Robert E. Peary on his successful North Pole expedition, Capt. Robert A. Bartlett and Comdr. Donald B. MacMillan, received today the Peary Polar Expedition Medal at colorful ceremonies at the Boston Army Base.

Standing on the after deck of Captain Bartlett's schooner, the Effie J. Morrissey, the veteran Arctic explorers received the silver medals from Rear Admiral Felix Gygax, commandant of the First Naval District.

The citations accompanying the medals, which commemorated the Peary expedition of 1908-09 stressed "outstanding service to the Government of the United States in the field of science and for the cause of polar exploration" and "exceptional fortitude, superb seamanship and fearless determination on the important and difficult mission."

As Admiral Gygax pinned the medal on Commander MacMillan's blue Navy tunic just above a row of campaign ribbons and stars, "Captain Bob" pumped his hand, beamed and said: "Congratulations, old boy, you got it all right." As he stood to get his award, the white-haired captain, now 69 years old, whispered to Admiral Gygax: "At long last." Then he declared:

"A medal is a wonderful thing, but there is something beyond medals, something transcendent—the memory of the greatest explorer who ever lived, Admiral Robert Edwin Peary."

"Captain Bob," who makes his home on his ship, is fitting the sturdy craft for another trip to the Arctic in the service of the Government. He was master of the schooner Roosevelt, which carried Admiral Peary and his men to the Arctic.

Commander MasMillan and Captain Bartlett headed supporting parties when Admiral Peary made his dash for the pole. Captain Bartlett reached the eighty-eighth parallel before turning back, while Commander MacMillan was carried back from the eighty-fifth parallel with frozen feet.

Today the commander recalled the other four men to whom the Peary Medal was awarded by the last Congress. Ross G. Marvin drowned in the Arctic during the expedition; George Borup drowned in 1912 in Long Island Sound; Dr. John W. Goodsell is an invalid at Sandy Lake, Pa.; and Matthew A. Henson, the Negro who served Admiral Peary for years and accompanied him to the North Pole, lives in New York

Commander MacMillan, who has been almost an annual commuter to the Arctic, was called back to active duty with the Navy in this war and his vast knowledge of the north regions was put to work in helping to win the war.

He disclosed that he would leave the active list in July and hoped to complete his Eskimo-English dictionary and book soon. The Navy, which took over his schooner Bowdoin at the outbreak of war, has returned it and the explorer plans to make it once again his school and laboratory.

Stores Ice for Water

POINT BARROW, Alaska (AP)—The ice man of the far north country is Chief Warrant Officer W. H. Burgess, oldtime oil driller. When the Seabees landed here they immediately sought fresh water. A small lake was found near by. Tests showed that it had not frozen to the bottom, but it was only eight feet deep and would soon freeze completely. Burgess took a detail of men and began sawing out huge chunks of ice. They stored 100,000 cubic feet of it to be melted down for water when the lake freezes tightly.

PREDICTS BIG BOOM IS DUE IN ALASKA

Territorial Official Says Many Thousands of Veterans Will Migrate After the War

WASHINGTON, April 1 (U.P.)—Thousands of service men and civilians will migrate to Alaska after the war to find adventure, free land and a chance to get rich, Edward L. Bartlett, Territorial Delegate to Congress, predicted tonight. He said in an interview:

"All signs indicate that the country's last frontier will be invaded by settlers when the war ends. A surprising number of service men stationed in Alaska plan to return there to live."

He was not sure that veterans would easily obtain GI loans to "pioneer" in Alaska, but he said that the Smaller War Plants Corporation and the Department of Interior were working out plans to assist veterans in establishing themselves there, both as homesteaders and in business. He added:

"If you like to be your own master, you can do it better in Alaska than anywhere in the States."

To veterans and other people who decide to "go north," he said, Alaska offered these opportunities:

Farming—There is plenty of free land to be homesteaded.

Prospecting—Gold and other strategic minerals are there, and much of the land has never been tested.

Forest products—Alaska has great timber stands and there is enough pulp timber in one of the national forests to yield 25 per cent of the newsprint requirements in the United States "in perpetuity." Pulp mill operations and woodworking establishments could be profitable.

Oil—The Naval Oil Reserve has a reasonably good prospect of becoming an important reserve of oil.

Fishing—There is a chance to take over the crab industry which Japan had before the war, as much "choice" Japanese crabmeat sold in the United States was caught in American waters.

Aviation — Already important, and will expand.

Service industries of all kinds, barber shop, drug stores, beauty parlors, restaurants, etc.

Livestock raising, trapping and fur growing.

Tourist trade—Will expand enormously due to difficulties in post-war travel to Europe, and this will create needs for new hotels, shops, entertainment spots and other businesses which cater to tourists.

Alaska's Arctic Shore Home of Myriad Birds

Ptarmigans and Redpolls Live There All the Year

In northern Alaska, along the Arctic Ocean and including the Yukon Valley, is a vast, sparsely settled land, the summer home of myriads of birds. A few of the birds, including the ptarmigans, the great white Arctic owl, the redpolls and a few others, live there throughout the year, but the great majority fly southward as soon as winter closes the streams and lakes.

This northland would be filled with millions more of summer birds, busy rearing their families, were it not for the thousands of gunners who shoot them in their passing, some simply for the fun of seeing them fall, writes C. L. Andrews in "Nature" Magazine. From the time the birds leave on their southern flight—some of them bound for the antipodes—until they return the next season they face a continual ambuscade. Danger lurks in every pond and bush or grass tuft. The number that return to the breeding grounds decreases yearly. Lakes where migratory waterfowl congregated in uncounted numbers fifty years ago or less are today sparsely tenanted by comparison.

NEW DEVICE GIVES PLANE'S POSITION

Keeps Track of Latitude and Longitude, Doing Work That Saves Navigator Hours

A new air position indicator, which automatically and continuously computes an airplane's exact air position in terms of latitude and longitude, and at the same time indicates the true compass heading and mileage covered from the point of take-off, was demonstrated Feb. 15 at the Biltmore Hotel by the Bendix Aviation Corporation.

Developed by the Bendix Eclipse-Pioneer division in cooperation with the Army and Navy Air Forces, the indicator has been in mass production for some months and already has figured importantly in Superfortress raids on Japan and in air strikes over Europe.

The new device, about the size of a quart milk bottle, consists of a system of friction drives, balls and discs that integrate information supplied by compass and air mileage unit, it was revealed. With its aid, navigators can determine in seconds what previously required minutes to hours.

Explaining the operation of the new navigation aid, Charles Marcus, vice president of Bendix, said that it automatically performed all its computing, calculating and indicating functions within a single self-contained device, mounted on the instrument panel.

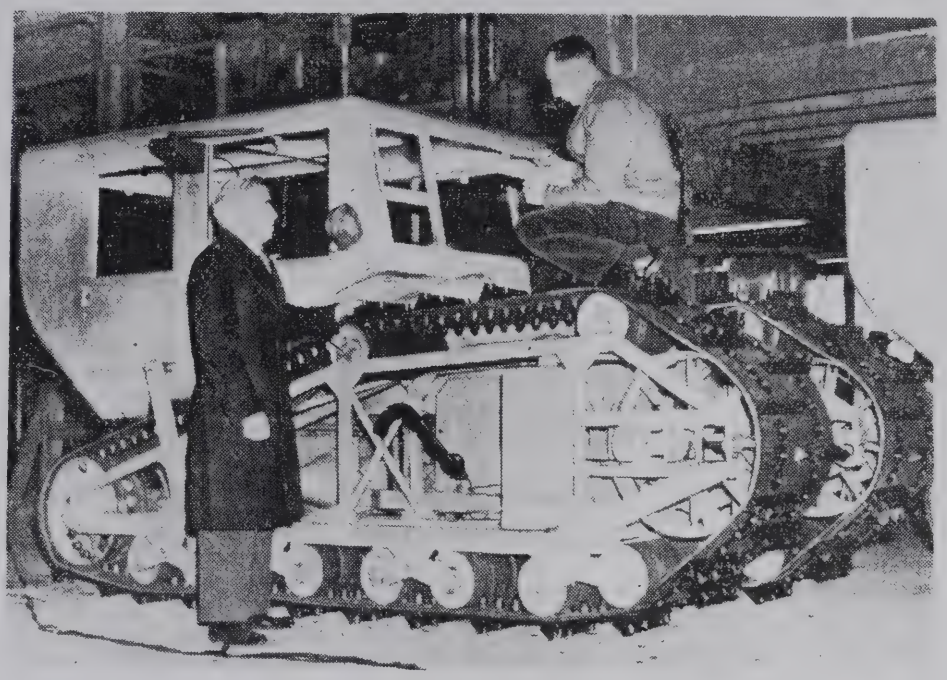
"This device," he said "makes calculations which ordinarily would require a navigator to work for hours with charts, basic navigational reference books, sextants, chronometer, rules and dividers to determine a plane's position in flight.

"Two separate indicating counters, set in an instrument panel compass dial, show degrees of longitude and latitude and give the navigator an exact and continuous reading of his position. This same dial also gives the navigator a continued record of nautical air miles flown and indicates the correct compass heading of the plane."

Taking the indicator readings and checking his driftmeter, it was pointed out, a navigator can pinpoint his position immediately on the map and keep the plane on its course. The driftmeter supplies the navigator the information needed to correct for error due to wind drift.

In operation, engineers said, the latitude and longitude of the point of departure is set manually on the instrument. After that, at any time during the flight, the air position is determined merely by reading the two indicating counters. Air position can be quickly converted to ground position by applying a wind vector line representing the direction and distance that the air has moved since the last position figures were set into the air position indicator, it was explained.

A Threat to Dog Teams—the Army's New Snow Cruiser



This newly developed transport, pictured at Portland, Ore., is used in deep-snow country

Ordnance has developed a full track Snow Cruiser for the Air Forces, to be used in deep snow country for towing and light cargo hauling. This transport vehicle, when loaded, weighs two and a half tons, has a speed of twenty miles an hour, a cruising range of 100 miles and a unit ground pressure of only .84 pounds per square inch. Maximum tractive effort is 5,000 pounds. The Snow Cruiser uses the suspension type running gear with fourteen wheels, while the type of track is an endless six-ply fabric belt. The number of shoe tracks is twenty-seven, with a width of two feet. Powered by a ninety-horsepower gasoline engine, the Snow Cruiser is about 14 feet long, 6 feet high and 5 feet wide. It has successfully negotiated snow fifty feet deep.

Aleuts, Routed by War In '42, Are Home at Last

U. S. Will Replace Their Lost Guns and Dories

UNALASKA, Alaska, April 23 (Delayed) (AP).—Home tonight out here on the ragged edge of the world are the Aleuts, the only North Americans the Pacific war has forced to flee their homes.

The Aleuts had been homesick a long time. They were moved en masse from the Aleutian Islands in 1942—all except the 100 or so who were on Attu. The fate of those hundred is a mystery.

One by one, 120 of the Aleuts came down the gangplank of an Army transport today. They stared into the brooding silence of the smoky sea and blinked their eyes when they looked at the snow-covered mountains that were palisades of light.

It was a strange homecoming for the strange people who were never happy away from their traps and dories and these bleak treeless hills that rise out of the cold sea.

The 120 who disembarked today were only a part of 400 of the island people being repatriated.

Don C. Foster, general superintendent of the Alaskan Indian Service, said the Army and Navy would supply the Aleuts with all necessities of life, even replacing lost guns and dories.

Waste Engine Heat Harnessed In New Setup to De-Ice Planes

WASHINGTON, Feb. 10 (AP)—A new deicing system utilizing waste engine heat has reduced one of flying's greatest hazards, the formation of ice on aircraft.

Developed in the laboratories of the National Advisory Committee for Aeronautics, the system is being used in some new designs of Army combat and transport planes. The Navy plans to build the equipment into its new transports.

Hot air used in the system is provided by engine exhaust gases. In one large plane, hot air is transmitted to the wings, tail surfaces and other components at the rate of 1,700,000 British thermal units an hour—more than 500 times enough to heat an average six-room house.

The windshields, also a part of the system of ice prevention, are built of double-pane construction. Hot air is circulated between the inner and outer panes. This prevents formation of ice on the outer pane.

N. A. C. A. engineers also reported that heat provides the best means of protecting engine parts and propellers against icing.

Electrical energy is employed in one of the methods of propeller deicing now under development. The "props" are kept free of ice by specially constructed rubber heating pads cemented to the leading-edge regions of the blades. This method, N. A. C. A. said, is much more effective than paste and fluids previously employed.

A new wind tunnel, built especially for icing research, is operated at Cleveland, Ohio.

Sun Never Sets on American Soil

The far-flung Empire upon which the "sun never sets" has a present-day rival. The territorial expansions of the United States in recent decades have considerably lengthened the duration of sunshine on American soil. In summer, at least, we can truthfully say that the sun does not set on the Stars and Stripes.

Mount Katahdin, almost in the geographical center of Maine, is the first place in the United States to greet the morning sun. At almost that precise moment it is setting on Attu, last of the Aleutians and the last tip of land on this continent upon which the setting sun casts its rays—the Aleutian fog permitting!

Capt. Fitzsimmons Killed in Action

Newarker Who Aided Byrd and MacGregor Expeditions Dies in Cuba

NEWARK, N. J., May 10

AAF Capt. Roy G. Fitzsimmons, 29, was killed in action May 5 in Cuba, according to a War Department telegram received yesterday by his father, John F. Fitzsimmons of 50 Leslie street.

Capt. Fitzsimmons, a geo-physicist, went to Greenland on the MacGregor expedition for the Carnegie Institute in 1937 and to the Antarctic in 1939 on the Byrd expedition. On his return he worked in Washington as a magnetologist for the Department of the Interior before entering the Air Forces in 1943.

Supplementing his technical knowledge with radar training in the Army, Capt. Fitzsimmons became intelligence officer for B-29 Superforts at their India headquarters and in this capacity helped plan details of bombing attacks on Japanese targets.

His knowledge of the causes of weather, gained from his Arctic and Antarctic expeditions, was valuable in scheduling Superfort raids with a minimum of danger from weather conditions. He would "set up" the B-29 raids, indicating the course of the flight and the altitude.

Capt. Fitzsimmons returned from India last November after six months overseas and after escaping injury in a plane crash at a Cairo airfield. After a leave at home ,he was sent to Army Air Field in Lincoln, Neb., and to Cuba in March.

He was born in Newark and was graduated from Blessed Sacrament School, St. Benedict's Preparatory School and Seton Hall College. His interest in the MacGregor expedition was aroused by Mgr. James F. Kelley, Seton Hall president.

With 11 other crew members he sailed with Clifford J, MacGregor from Port Newark in July, 1937, after taking a short intensive course to familiarize himself with the research instruments he would use as physicist-magnetologist of the expedition. The group in the Arctic obtained drinking water by melting chunks broken off icebergs. Despite a thermometer reading of 60 degrees below zero expedition members suffered no ill effects from the rigorous cimate.

After his return Capt. Fitzsimmons went to Washington to complete research work in chemistry, magnetism and physics. There he was chosen by Dr. F. A. Wade, chief field scientist of the Byrd expedition, as a physicist and left in November, 1939. While in the Antarctic he kept up constant communication by wireless and radiophone with his parents and nine brothers and sisters.

Capt. Fitzsimmons returned in May, 1941, after a 9,000-mile journey, with quantities of data which he submitted to the Carnegie Institute in Washington.

He was the youngest of the 10 children. His brothers are John, recently honorably discharged from the Coast Guard; Joseph of Newark, Leo of the FBI and S/Sgt. Walter G., now stationed in the Philippines. Two sisters, Miss Frances Fitzsimmons and Mrs. Thomas Fitzpatrick, are Newark school teachers. His other sisters are Mrs. Fred Fox of Orange and the Misses Agnes and Gertrude of Newark.

Capt. Roy Fitzsimmons

DR. STANLEY W. KEMP

Recognized as Foremost Expert on Marine Biology in Britain

PLYMOUTH, England, May 18 (AP)—Dr. Stanley Wells Kemp, acknowledged as Britain's foremost authority on marine biology, died Wednesday at the age of 64. He had been director of the Plymouth Laboratories since 1936.

Dr. Kemp had been secretary to the Marine Biological Association of the United Kingdom since 1936.

After an education at St. Paul's School and Trinity College, Dublin, Dr. Kemp became an assistant naturalist in the Fisherie branch of the Department of Agriculture and Technical Instruction for Ireland in 1900. He was superintendent of the zoological section of the Indian Museum at Calcutta from 1910 to 1924, when he became director of research to the Discovery Committee of the Colonial Office, where he remained until his appointment to the Marine Biological Association.

He had written many papers on crustacea for scientific journals.

CAPT. HARTSON H. BODFISH

Whaleman, 83, Docked Record Cargo of Bone in San Francisco

VINEYARD HAVEN, Martha's Vinyard, Feb. 1—Capt. Martson H. Bodfish, one of the last surviving arctic whalemen, died early today in his residence at the age of 83. A veteran of thirty years' whaling experience and forty-four continental crossings by rail, he took command of his first ship ten years after shipping on a whaler as a seaman, his first job at sea.

He was in command of the Beluga for seven years, the Hartman for three years, and in the William Baylies, he brought the largest cargo of whalebone ever to sail into a San Francisco dock, 113,000 pounds from sixty-three whales. He retired from the sea after the first World War.

Survivors include two sons, Howes of Philadelphia and Lieut. Hallet Bodfish of the Army, now in Belgium.

THOS. RIGGS, HELPED FIX U. S. BOUNDARY

One of Alaska Negotiators With Canadians—Ex-Governor of Territory

WASHINGTON, Jan. 16—Thomas Riggs, commissioner of the United States section of the International Boundary Commission, which fixed the lines between the United States, Alaska and Canada, died here today at the age of 72.

Born at Ilchester, Md., Mr. Riggs was graduated from Princeton University in 1894. His interest in the western parts of the country led him to travel to the West Coast and then to Alaska and Canadian coal regions, where he engaged in mining activities.

In 1903 he joined the United States Geological Survey. He headed the surveying party which drew up the boundary line between Alaska and Canada, often called the "straightest long line" in surveying.

President Wilson appointed him Governor of Alaska in 1918, and he held the post for three years.

Mr. Riggs was appointed to the International Boundary Commission in 1933 by President Franklin D. Roosevelt.

He was a member of the American Institute of Mining and Metallurgical Engineers, the American Society of Civil Engineers and the American Geophysical Union. His clubs were the Racquet and Tennis and the Mining, both of New York.

Mr. Riggs leaves a widow, the former Renee Marie Coudert of New York; a son, Lieut. Thomas Riggs Jr., USA, and a daughter, Lieut. Lisette Riggs Iseley of the Spars.

In 1923 Mr. Riggs contributed an article to THE NEW YORK TIMES in which he asserted that a stone lamp, seen by him when he was on the Alaska-Canada boundary survey and found ten years earlier by a farmer, indicated that Japanese had landed in Alaska centuries before.

He had served as vice president of Macassa Mines, Ltd., and as a member of the Alaska International Highway Commission.

Named to Boundary Board

WASHINGTON, May 19 (AP).—John A. Ulinski, of Buffalo, has been named by President Truman as a member of the International Boundary Commission of the United States-Alaska-Canada.

ARTEUR ROBERT HINKS

LONDON, April 19 (AP).—Arthur Robert Hinks, geographer and astronomer, died yesterday at Royston, Hertfordshire. He was seventy years old. Mr. Hinks had been secretary of the Royal Geographic Society since 1915 and was a former secretary of the Royal Astronomical Society. He received the American Geographical Society's Cullum Medal in 1943.

Lt. Comdr. Isak K. T. Lystad

LT. COMDR. ISAK LYSTAD

Commander of Byrd's Flagship on Last Antarctic Expedition

SEATTLE, May 29—Lieut. Comdr. Isak Lystad, USNR, master of the motorship North Star, flagship of Admiral R. E. Byrd's last Antarctic expedition, died on Saturday in the naval hospital after a three weeks' illness and was buried today in the Navy plot in Washelli Cemetery.

Commander Lystad was born in Kristiansund, Norway, forty-nine years ago and went to sea at the age of 14. He came to the United States in 1922. His first trip to Alaska was in the Pacific American Fisheries motorship Patterson, which called at Herschel Island. In 1925 he cruised to Siberia in the Chukotsk, owned by the late Olaf Svenson, Arctic trader.

Before his Antarctic voyages Commander Lystad was master of the Boxer, a Bureau of Indian Affairs vessel which carried supplies to schools, hospitals and reindeer stations in the Arctic.

He leaves a widow, Jany; two sons, Rolf and Howard, all of Seattle; a sister, Mrs. Oscar Odegard of Brooklyn, N. Y., and his mother and two sisters in Kristiansund.

During the decade 1930-1940, he commanded one or the other of these vessels on annual visits to Indian and Eskimo villages of the North Pacific and Arctic Oceans. An outstanding navigator, he was licensed to navigate ships in any ocean and received high commendation for exceptional service in command of the two Byrd Antarctic expedition vessels.

At the start of World War II, he volunteered and was commissioned a lieutenant commander in the Naval Reserve, serving with the North Atlantic fleet. Because of a severe heart condition, aggravated by strenuous duties over a long period, he recently was placed on inactive status and sent to Seattle for treatment and rest.

Buckner Drove Japanese From The Aleutians

TENTH ARMY HEADQUARTERS, Okinawa, June 18—Lieut. Gen. Simon Bolivar Buckner Jr., commander of the Tenth Army, was wounded fatally today by an enemy artillery shell that landed squarely in a forward marine observation post where he was watching his Tenth Army troops mop up dwindling Japanese forces on the southern tip of Okinawa.

Lieutenant General Simon Bolivar Buckner jr., fifty-eight, son of a Confederate general who was left holding the bag at Fort Donelson and still made a lot of trouble for his old Academy associate, General U. S. Grant, was a tough soldier, master of all the rules of the game and insistent on following them.

It was due to his efforts as commander in Alaska from 1940 to 1943 that the Japanese never got more than a bare foothold far out on the Aleutian chain and that eventually they were booted completely off Attu and Kiska. In 1944 General Buckner dropped out of the news. He was organizing his 10th Army, with which he landed in force on Okinawa on April 1, 1945.

Hard-faced, loud-voiced, and weather-beaten, there was no inflated bluster about General Buckner. He meant what he said and he made it good. When there were hardships he shared them and shared them with obvious gusto. He kept in touch with his men.

Was West Point Commandant

In 1932 he became assistant commandant at the United States Military Academy.

From 1933 to 1936 General Buckner was commandant at the academy.

In succeeding years he served with infantry and light tanks and in July, 1940, was dispatched as commanding general of the Alaska Defense Force. Army officers saw trouble coming and feared it might be headed for Alaska. They were unable, however, to get funds to start preparations immediately in a big way.

Pearl Harbor remedied that situation and General Buckner plunged into an orgy of work. With what was at his disposal he already had accomplished seeming miracles at strategic points and now he went to work in earnest.

In the beginning, like his men, General Buckner had lived in a tent, from which he emerged at reveille in below-zero weather without shirt or tunic, heading for a water bucket and puffing his pleasure in great vapory blasts.

The story of his work in Alaska has not been told, for reasons of security, but posts were established and strengthened, communications set up, airfields built and such preparations made that even with bases in the Aleutians, the Japanese soon fought shy of sorties against the mainland. Their battered remnants finally were driven from the last island, according to plan.

A keen hunter, with highly trained dogs in his kennels at his Kentucky home south of Louisville, General Buckner was much provoked by the attitude of Alaska authorities concerning hunting licenses. A resident hunting license in Alaska cost $1 and a non-resident license cost $50. The authorities declined to consider residents of military posts as Alaskan residents. They wanted $50 apiece from any of them who wished to do any hunting.

General Buckner, who would have found time somehow to hunt on his numerous arduous trips through the territory, could have paid for a license without much difficulty but, for the sake of his men, he refused to get a $50 license and did no hunting. As a result of his unflinching attitude the matter finally was adjusted.

It was in June, 1944, that General Buckner quietly took his departure from Alaska and began his work with the 10th Army, with which he was to direct a campaign so vastly different. It was his idea from the beginning that the only way to hasten the defeat of Japan was to kill more Japanese.

General Buckner was born in Munfordville, Ky., July 18, 1886. His father was Governor of the state. General Buckner was a student at Virginia Military Institute at a time when General George C. Marshall, now chief of staff, was the school's football idol. President Theodore Roosevelt appointed General Buckner to the United States Military Academy at West Point in 1904 and he was graduated in 1908.

General Buckner married Miss Adele Blanc on Dec. 30, 1916. His wife; two sons, Simon Bolivar Buckner 3d and William Claiborne Buckner, and a daughter, Mary Blanc Buckner, survive,

Killed in Action

Lt. Gen. Simon Bolivar Buckner jr.

C.D.Brower,82, Author,IsDead; 'King of Arctic'

BARROW, Alaska, Feb. 12 (AP). Charles Digory Brower, author of "Fifty Years Below Zero," died yesterday of a heart ailment. He was eighty-two years old.

Left Civilization Behind

No white man had lived at Point Barrow during the winter until Mr. Brower went there in 1883, but, despite temperatures of 65 degrees below zero, Mr. Brower learned to make himself comfortable in snow igloos, to relish frozen raw meat and frozen fish, and to whale from a kayak in the Eskimo way. Among his Eskimo neighbors he was known as the "King of the Arctic."

When Mr. Brower first set out for Alaska he did not intend to go as far as Point Barrow. He had been a sailor since he was fourteen, but on one of his trips around Cape Horn his ship caught fire and was barely able to reach San Francisco. So the young man decided to go to Cape Lisburne on a coal prospecting venture.

At Cape Lisburne, however, Mr. Brower found four other white persons—too many for one seeking to get away from civilization. Mr. Brower hitched up a dog team and mushed 300 miles northeast until he came to the point. There he decided to become a whaler.

In those days whalebone was being used for corset stays and a good-sized whale would bring from $10,000 to $25,000. Mr. Brower found life not only prosperous but pleasant. Some years later he married an Eskimo girl named Toctoo. His wife died during an epidemic which, in his book, Mr. Brower said was brought to the Eskimos by the encroachments of white civilization.

After her death, Mr. Brower married another Eskimo woman, named Mary. He had seven daughters and nine sons, two of the adopted. Two of his sons, Major James Brower and Private Arnold Brower, are in the United States Army.

In 1942, in collaboration with Philip J. Farrelly and Lyman Anson, Mr. Brower told the story of his life among the Eskimos in "Fifty Years Below Zero." It is filled with tales of what were to him a "fascinating" rather than a "strange" people, and reflects his devotion to those among whom he passed his life.

Mr. Brower was for many years a United States Commissioner, and recently was a member of Local Board 21, of the Selective Service, which takes in an area of 55,000 square miles. His trips to New York were infrequent, and they invariably brought from him an expression of preference for the Aurora Borealis to the lights of Times Square.

His last visit was in February, 1943. Although the weather was freezing, he kept the heat turned off in his hotel room and the window half open.

During his years on the point Mr. Brower had many distinguished visitors. Among them were Vilhjalmur Stefansson, Sir Hubert Wilkins and Roald Amundsen. Will Rogers and Wiley Post were on their way to visit Mr. Brower when they were killed when their plane crashed near Point Barrow in 1935.

'King of the Arctic'

Charles Digory Brower

Capt. Abraham Kean,91, Was'King of Seal Killers'

Hunted for Pelts 69 Years; Was Decorated by Crown

ST. JOHN'S, Newfoundland, May 20 (CP).—Captain Abraham Kean, Order of the British Empire, ninety-one, known as the "King of the Seal Killers," died here Saturday.

Made Record Catch in 1934

Captain Kean, long renowned for his sealing exploits, won undisputed first rank in his profession when, in 1934, his ships, sailing out of Newfoundland ports, brought in a record catch of 1,000,000 pelts. He died while he was planning revival for the sealing industry, interrupted by the war.

He beat through the ice fields hunting the rich fur for sixty-nine years, and was unanimously regarded as the world's greatest authority on the migration and habitat of seals.

He was Minister of Marine and Fisheries for the Dominion in 1897, and later served as an inspector of fisheries along the Labrador coast. He planned to rejuvenate the industry in small power craft, strongly built to buck the ice fields, and to combine sealing with the profitable trade of shark fishing.

Hit by Weather Extremes

Fort Yukon, in Alaska, has a weather bureau record of 100 degrees in the shade and another record as the coldest place in Alaska, at 78 degrees below zero.

GREELY, VICTIM OF AMPHIBIOUS NONCOÖPERATION

By CAPTAIN J. M. ELLICOTT, *U. S. Navy (Retired)*

THE 100th anniversary of the birth of Major General A. W. Greely calls to this writer's mind our most tragic national character of the early eighties; a victim of the failure of our Government to realize the necessity for co-ordinating the Army and Navy in an amphibious task.

About sixty years ago Lieutenant Greely was taken from a small army post and sent in charge of a polar expedition with no special equipment for it except a knowledge of meteorological instruments, and spent two years of suffering in arctic cold and tempests which cost the lives of many of his companions and almost cost him his own.

Quite naturally, he knew little of navigation, did not know how to sail boats, and probably had had little experience in rowing them. He knew nothing of life in subzero temperatures unless briefly during home winters, and the army men who accompanied him were almost equally ignorant of such things. Just why the Navy was given no share in this amphibious task is hard to understand.

In those days, when this writer was at the Naval Academy, there was but one avenue of adventure for the Navy—arctic exploration. Every effort to reach the North Pole had ended in disaster or frustration, but the heroic endeavors of Grinnell, Sir John Franklin, and Dr. Kane fired the imagination and longing of youthful argonauts. The vast area within the ice barrier around the pole was a region of intriguing mystery. Sir John Franklin and his whole expedition had disappeared in it. Dr. Kane, returning from a fruitless search for him, claimed that he had found an open polar sea which could be navigated if it could ever be reached through the ice barriers. The novelist Jules Verne wrote a novel on a theory born in his fertile mind that the centrifugal force of the earth's rotation had created a hole through its center from pole to pole.

All this led to an international Polar Conference at Hamburg, Germany, in 1879, which decided that before further polar expeditions should be undertaken a ring of circumpolar stations should be established for meteorological and magnetic observations, and the United States was assigned two of them, one at Point Barrow and one at Lady Franklin Bay. To the latter, the most difficult to reach, Greely was sent for a two years' stay. Expeditions were to follow each summer to see how he was getting along and to replenish his supplies. They could only reach him at immense navigational hazard through long, narrow, tortuous channels and temporary leads through mountainous ice fields. The whaler which took Greely struck an unusually open season.

There was no radio in those days, and there were no airplanes.

In spite of these conditions the first relief expedition was conducted by the Army, in a whaler named the *Neptune*. It fired the interest of my class because the father of our number one cadet, Commander S. Dana Greene, supervised the fitting out of the *Neptune* at St. John's, Newfoundland, but we were grievously disappointed when the *Neptune* returned in August, the best month for polar navigation, the leader of the expedition claiming that he could get no farther than Cape Sabine, and he left no supplies there.

This created a strong public demand that the next expedition should be conducted by the Navy, but the Chief Signal Officer of the Army persuaded the President to put Lieutenant Garlington, a young Army officer who had never been away from his regiment, in charge. He had, however, the good judgment to get an acquaintance of his, Lieutenant J. C. Colwell of the Navy, assigned to the expedition in an advisory capacity. The whaler *Proteus*, which had taken Greely up, was selected, the U.S.S. *Yantic* to follow as a tender as far as Disco, she being unfit to ram her way through ice.

We were on tiptoe with interest until the sad news came that the *Proteus* had been crushed in the ice at Cape Sabine, the only glory being the heroic long distance journey in open boats through ice and storm by Garlington and Colwell, with all the *Proteus'* crew back to the *Yantic*.

As scarcely any stores had been landed at Cape Sabine for Greely by either expedition, while the time for which he had been stocked was expiring, the whole country realized that his situation must be getting desperate. Then at last efforts for his relief were put entirely in the hands of the Navy and an expedition of three vessels was prepared under Commander W. S. Schley; the whaler *Thetis*, accompanied by the whaler *Bear* and the U.S.S. *Alert*. By that time the members of my class and those immediately above it were at sea and "rarin' to go," but none were taken below the class of '80.

Meanwhile Greely's time at Lady Franklin Bay had expired and with provisions getting low he broke camp and trekked laboriously southward along the ice-bordered coast, bringing with him his instruments and records, until he reached Cape Sabine, there to learn from a cache of the loss of the *Proteus* with nearly all of her supplies. He knew that the main base of supplies was at Littleton Island but it was far to the south across the ice-cluttered sound. He had a staunch and well-outfitted boat but he and his men were not sailors, were utterly exhausted, and winter storms were setting in. Believing that a boat trip meant certain death they decided to hole in, so to speak, husband their meager provisions, and await rescue—or death.

And death soon began to come. One by one the weaker men died and were buried. As winter and spring passed starvation was setting in for the remainder and only a few could leave their tent to look for some living thing to shoot and eat.

Came a day when a boat from the *Bear* rounded Cape Sabine and a gaunt, fur-clad, bearded figure was seen standing on rising ground back of the beach. Waving his arms wildly he staggered toward the boat.

He conducted the boat party to a half collapsed tent and dragged aside the tent flap revealing about half a dozen men in sleeping bags. An emaciated creature crawled out of one of them, crawled feebly toward the opening, and gazed with vacant eyes through a tangled mass of hair and beard, then tried to rise and collapsed. It was Greely.

"Where are the others?" asked the boat officer.

His guide pointed mutely to a near-by row of graves.

Greely whispered huskily from his prone position: "We saved all our records."

This news was flashed all over the world on July 17, 1884, when the relief expedition reached St. John's, Newfoundland, on its return trip, and emotion ran riot: gratitude to God and to the Navy for those who survived. A grand reception was then planned for them, to be held at Portsmouth, New Hampshire, it being thought best not to subject them to the summer heat of more southerly cities.

The North Atlantic Squadron of six vessels under Rear Admiral S. B. Luce was assembled there together with the Naval Academy practice ships *Constellation* and *Dale* with the first and third classes, and the apprentice training ships *Portsmouth* and *Jamestown*.

The Piscataqua River leading to Portsmouth has a broad, open roadstead just inside its mouth but then becomes narrow and tortuous with a sharp bottle-neck bend about half way up through which currents eddied with such force that small boats found difficulty bucking against them and the point which they had to round became known as "Pull-and-Be-Damned Point."

Admiral Luce's flagship, the *Tennessee*, on which I was serving, was too large to negotiate the bend and remained anchored in the roadstead near the river mouth while all the other vessels went on up to the Portsmouth Navy Yard, those having sail alone, with one exception, being towed up by tugs. From the *Tennessee* we had a grandstand view of the procession of vessels which, for a few days, was our only diversion. One morning the beautiful yacht *America*, then owned by Congressman Benjamin F. Butler, passed in under full sail and gracefully rounded Pull-and-Be-Damned Point without a tug.

When the Naval Academy practice ships arrived we were astonished to see the sloop of war *Dale* refuse a tug and continue up under sail, disappearing around Pull-and-

Be-Damned Point. We learned afterward that she continued to the navy yard, and was laid alongside a dock unaided, by Ensign W. F. Fullam, who had displayed such masterful seamanship that his captain permitted him to do it.

Many distinguished people gathered at Portsmouth including the Secretary of the Navy, General Nelson A. Miles, representing the Secretary of War, the Governor of New Hampshire and of Greely's home state, the Chief Signal Officer of the Army, General B. F. Butler, and many others. Several of these wished to pay their respects to Admiral Luce and he designated this writer as an escort to conduct them down and back in his barge. In the long trip down and back I became fairly well acquainted with them, especially with Generals Miles and Butler. The latter was rather a squat figure, carelessly dressed and with quite an abdominal overhang. He had long, straight dark hair and down slanting, heavy-lidded eyes more than half closed. He was a voluble and rather profane talker. Miles, on the other hand, was a superbly handsome military man, wearing full uniform, unbending and taciturn even with an aide who accompanied him.

Mrs. Greely, accompanied by General Hazen, arrived a day in advance of the relief vessels and was domiciled overnight on the *Tennessee*. She was quite a handsome young woman but her face showed the strain of her months of despairing anxiety.

The relief vessels arrived August 2, the *Thetis* anchoring near the *Tennessee*, and the others proceeding to the navy yard. The dramatic and emotional greeting between Mrs. Greely and her husband was held in the privacy of the *Thetis'* cabin. The *Thetis* then proceeded to the navy yard where the survivors were hospitalized under medical care.

The public welcome came on August 5 with a grand parade through the streets of Portsmouth, the battalion of the North Atlantic Squadron under Lieutenant C. E. Colahan, that of the naval cadets under Ensign Fullam, a battalion from the apprentice training ships, and an army battalion from a near-by post. A platform had been erected on which Greely and Mrs. Greely sat together with the other survivors and all the Army, Navy and civil officials. This writer commanded a company in the *Tennessee's* battalion.

Greely was attired in fur-lined clothing although it was a fairly warm day. He looked tall and thin, his face, deadly sallow, framed in a full beard and his eyes covered with dark glasses. As I looked at him in passing I thought he never could fully recover. Nevertheless he arose to attention and saluted as each battalion flag passed.

In spite of our impression that his days were numbered he lived to be more than eighty years old and became a Major General and Chief Signal Officer of the Army.

Greely faithfully and perseveringly accomplished his mission but had it not been for the belated realization of our Government that such an amphibious task required co-operation between the Army and Navy he and his work would have perished.

Several years later Congress awoke to his heroism and awarded him the Medal of Honor.

AN HONOR graduate from the Naval Academy in the class of 1883, Captain Ellicott is a veteran of forty years' active service, including the Spanish-American War, the Philippine Insurrection, World War I, and several expeditionary occupations.

U. S. Naval Institute Proceedings
MARCH 1945

THE EXPLORER THAT HISTORY FORGOT

By JOHN BROOK PENFOLD

BECAUSE they were first to see this or that bit of land, the United States Navy has paid tribute to countless British explorers. However, there is one man whose work has a closer association with the progress of our Navy who, generally speaking, has always been overlooked, Sir James Clark Ross.

He has, perhaps, more "firsts" to his credit than most explorers of his day, but possibly only Admiral R. E. Byrd and his staff were aware that New Year's Day marks the anniversary of events leading to the discovery of the Ross Ice Shelf, Ross Sea, and Ross Island in the Antarctic. No navigators, apparently, know that June marks the anniversary of the discovery of the Magnetic North Pole; further, neither the historians of the Navy nor those of Great Britain seem to recall Sir James' connection with the first attempt to explore the arctic regions in a steamship almost ten years before the first recorded trip by a British-built steamer.

Notwithstanding his historic discoveries, to learn of the man's life it is necessary to comb the writings of other explorers with whom Sir James traveled. Born on April 15, 1800, James Clark Ross, son of a minister and nephew of Sir John Ross, R.N., early learned to intone the Twenty-third Psalm and reel off the nomenclature of ship's rigging with equal ease. Of the two, James liked his samples of naval education the better, and as a skinny lad of twelve years he shipped aboard the *Briseis*, commanded by his uncle, Sir John. For the next two years, as a First Class Volunteer, James did duty as messenger boy, galley helper, and cabin boy. The rigors of the life turned the frail appearing lad into a lanky youngster with muscles like steel wire. Although offered an opportunity to stay home and study for the ministry, he refused and followed Sir John up the gangplank of first the *Actean*, and later the *Driver*.

By a quirk of fate, the next three years were spent in the White and Baltic Seas; the early training he received in the fine points of combating cold weather, stormy seas, icy gales, and navigating through drift ice became invaluable aids when, in 1818, young James' career as an explorer began. Sir John Ross was assigned to the *Isabella*, which in company with another ship sailed in April for Davis Strait to search for a Northwest Passage, and James signed on with the expedition. The other ship was commanded by Lieutenant William Edward Parry who was destined to take over the training of James—and influence his life beyond all other contacts.

The two vessels passed through Lancaster Sound and proceeded until Sir John spied what he thought was "a mountain range dead ahead, rising sheer from the water." The expedition turned back. On the return journey, because of the approaching winter, there was a period of

24 hours employed in tracking through the ice; the whole ship's company was sent on the ice, and a rope thrown to them, one end of which was fastened to the head of the foremast. The men pulled the ship ahead, marching to the music of a fiddler. The men occasionally tumbled into a hole covered with snow or broke through a thin place in the ice, but they never let go the rope.

The expedition reached England in December, and during the following May, two ships, the *Hecla* and a vessel bearing the peculiar name of *Griper*, returned to the arctic under the command of Parry. Impressed by James' personality and intelligence, Parry had the nineteen-year-old youth assigned to the party. As the ships plowed through the northern waters, Parry, noticing his compass acting queerly, summoned Ross. The two young explorers (Parry, himself, was only about 29 at the time) watched a tested compass needle point due south. Scientists had warned this might happen, yet the behavior of the needle still gave them a feeling the world had suddenly swapped ends. Proceeding by dead reckoning the ships continued. At each stopover, scouting parties were dispatched to do as much mapping as erratic compass needles would allow. Winter was spent at Melville and during the 1820 spring-summer thaw, the explorers searched farther for the channel to the Bering Strait. Being unsuccessful, Parry turned his ships homeward. Upon their arrival, the officers and men divided the reward of $25,000 offered by Parliament for the first expedition to pass the 110th Meridian within the Arctic Circle.

When the *Hecla* and *Fury* sailed westward the following year, 1821, under the command of Parry, James Ross once more accompanied him. During this trip, as well as the previous

one, the crews received entertainment in the form of theatricals, competitions between ships' crews and Eskimos, and a newspaper. This procedure was in opposition to that advocated by Sir John Ross who believed the way to keep men from getting on each other's nerves was to work them until they dropped, then feed 'em and toss 'em in their bunks.

The journalistic enterprise, the first of its kind in arctic exploration proved to be the most interesting. The *North Georgia Gazette* contained articles, poems, essays, and advertisements written under nom de plumes by the crew members. Some of the articles could be lifted and published today with very little change and no one would guess they had been written more than a century ago; a strange thing, indeed, to say about the literary efforts of men "in the days of wooden ships and iron men when sailors were alleged to have been able to say nothing without exuding an odor of brimstone and only the most erudite could scrawl a letter home."

Humor was predominant and one writer made a habit of sharpening his goose quill, thawing out a block of frozen ink, then using little unintended annoyances as his theme. More than once, perhaps, he forestalled a free-for-all brawl by such gem as

I wish to allude to habits which some members of our community have acquired in earlier life, and which they continue to practice daily to the interruptions of the more industrious. Under separate heads, the first are the Whistlers, who, having a tolerable ear themselves, seem to forget the rest of us have any. Whistler *A* commences a tune. After the third bar, *B* accompanies him to the end of the stave; by that time *A* has used his breeze and stopped to refill his bellows. *B* continues alone. Then just as you flatter yourself that he, too, will soon be winded a third Whistler at the other end of the table unexpectedly opens his pipes and takes a spell at it. Soon *A* rejoins the serenade. Then the Hummers begin employing the greater part of the day humming out of tune and always out of time; the Drummers usually start an accompaniment on a book which they keep *shut* for the purpose.

The listener by that time decides, "I didn't want to read this damn book, anyway" and stomps off to his bunk.

However, midst all this fun, Parry hurriedly called Ross and the ship's doctor, one day. Scurvy, scourge of nearly all seafaring men in those days, had stricken some of the crew. A similar outbreak on Ross's first voyage with Parry had caught them with only vegetable extracts. This time they were well prepared. Lying close around the stove in Parry's cabin were wooden boxes filled with English loam and planted with mustard greens and cress. According to Parry, he

could raise a small crop in six or seven days, enough for about an ounce of salad for each man. Being devoid of coloring because of absence of sunlight did not seem to lessen their curative powers.

The experienced seamen accepted this tasteless mouthful willingly; the new men who balked were . . . "well, there was always the universal and ageless method of nose holding for administering medicine," and not a man was lost.

At the beginning of the spring thaw, the editor laid aside his quills for more serious work, but since no waterway was found leading to the western ocean, the expedition turned towards England. An early winter almost trapped them, but before the ice became too thick, relays of men were put to work sawing a channel until the ships reached thinner ice. In October, when the group reached home, James Ross received a document from the Admiralty stating that he had been promoted to a lieutenant in his absence. It should be mentioned here, in connection with clearing channels through the ice, at a later date when Ross passed along the route he was the first to introduce the use of gunpowder in the arctic regions for blasting waterways through the ice.

Ross and Parry, now known all over England as seasoned arctic navigators, were teamed on May 8, 1824, for another prowl through Canadian waterways. The trip almost ended in disaster when a storm forced the *Fury* on the rocks about the middle of 1825. The crew was transferred to the *Hecla* which was too small to acommodate all supplies from the beached ship. The expedition returned to England and the well-stocked galley of the abandoned *Fury* proved a godsend some years later when James Ross, himself, and another expedition became stranded on those same rocks.

Parry, now a Commander, and Lieutenant Ross, turned their attention to reaching the North Pole. Parry proposed that he be permitted to lead a group from Spitzbergen, using combination sled-boats with runners on them; permission was granted. With Ross as second in command, Parry's group shoved off from Treurenberg in 1827. James came very close to having his epitaph chiseled on an iceberg when a boat suddenly skidded and pinched him between the gunwale and an ice-wall. He was paralyzed and unconscious for a time but upon recovering threw his weight on the tow ropes. The trip was both a record breaker and a complete washout, for the two leaders overlooked one item in their plans. Their meridian readings give the impression they were walking on a treadmill. The starting point was reckoned to be Lat. 79°–55′; on July 17 the reading said 82°–32′–52″. Three days later, the reading was 82°–36′–52″. According to Parry's calculations, they had moved 12 miles, yet they were actually only 5 miles from their starting point three days before. It seemed impossible to cover more than 7 miles a day over the rough, softening ice sheet. Finally, when the readings on July 26 were compared with those of July 23 and it was found they had lost 13 miles, everyone decided it was time to pack up and go home.

As the reader has already guessed, Ross and Parry forgot the ice sheet would slowly settle southward with the current as summer approached. During the last days of the trek, it was headed southward as fast as the men puffed and dragged their sled-boats toward the North Pole. Nevertheless, they set a record that no one surpassed for almost 50 years. In recognition for his services, Ross was promoted to the rank of Commander. With this last promotion, James terminated what might be called his indoctrination under a very able coach, and in a bitterly cold classroom.

During all those years of sailing there had been in the back of his mind a picture of his uncle and Parry constantly checking their eight compasses; then he and Parry repeated the process during their operations. So it is not unusual that we find his interest centering on this paragraph in Sir John's book of *A Voyage of Discovery*:

Since the first discovery of the attractive power and polarity of the magnet and the consequent invention of the mariners' compass, great improvements have been made in its construction and some very unexpected magnetical phenomena have been discovered. The compass was in use some years before it was known that the needle had a deviation from the true polar direction. About the middle of the 16th Century that deviation began to be suspected and observations made soon afterwards proved that in England and its vicinity it was Easterly. This variation of the compass decreased until about the year 1658 or 1660 when the direction of the needle corresponded with the Meridian from which time it became westerly and increased.

Also to be found in the book was a description of the "mountain range" inserted against the advice of both Lieutenant Parry and young Ross. This insertion boomeranged and brought such discredit upon Sir John that he was years living it down. There had been no mountain range as was proved by Parry and Ross on a later voyage.

While James was making a reputation for himself, Sir John was attempting to make amends for his geographical boner. Sir Felix Booth, one time Sheriff of London, finally offered Sir John an opportunity to redeem himself. A small steamship, the *Victory*, was purchased in 1829 and equipped with a steam engine and paddle wheels designed by Sir John. It was to be the first attempt by English mariners to do arctic exploration in a steam-propelled vessel. Although the trip was a failure insofar as proving the efficiency of steamships, the westward trip antedates by almost ten years a trip made by the *Sirius* in April, 1838, which was described a century later in the *Manchester Guardian* and subsequently condensed by the *Reader's Digest* under the title, "First To Steam the Atlantic."

The author, Alexander Bone, probably draws a fine distinction between the voyage of the *Victory* in 1829 and the *Sirius* in 1838 by this paragraph,

Early in 1838 the people of the Old and New Worlds were much preoccupied with the coming transatlantic race between the rival steamships *Great Western* and *British Queen*, then nearing completion in England. *Several vessels had previously made partial use of steam during long ocean passages** but scientists had ridiculed the idea that steam could ever be the main source of power for long voyages.

* Italics by Penfold.

The skipper of the *Sirius*, Lieutenant Richard Roberts, R.N., was feted when he arrived in New York, but Sir John was fit to be tied upon his arrival in Canada. Commander James Ross accompanied his uncle, and Sir John spent so much time writing scathing letters to be mailed to the manufacturers of the steam engine that much of the responsibility of making the voyage pay dividends fell upon the shoulders of the younger man. The winter was spent in Felix Harbor; during the spring thaw they progressed a few miles only to be caught for another winter. In the last part of May, while Sir John continued his tirade against steam-engine manufacturers and planned more mechanical monstrosities which he named steam engines, a party under James started south. There was a determined glint in the young man's eyes; Commander Ross was going to overtake the elusive Magnetic North Pole that had traveled halfway around the world before settling down. After an all-day trip, he set up his instruments. The readings indicated the Pole was a few miles away. The next morning, the stronger marchers pushed on, leaving the slower ones to tote the remainder of the supplies and catch up as best they could.

One feels, after reading Ross's report, that the Englishman's habitual tendency toward understatement subdued the thrill he certainly must have felt but omitted from his story. He wrote:

> We reached the calculated place at 8 A.M. on June 1, 1831, and felt that nothing now remained for us but to return home and be happy for the rest of our days. I could have pardoned anyone who expected the magnetic pole to be as conspicuous and mysterious as the mountain of Sinbad, a mountain of iron or a magnet as large as Mont Blanc. But nature had erected no monument to denote the spot she had chosen as the center of one of her great and dark powers.
>
> The site of our observatory was as near the magnetic pole as limited means enabled me to get. The amount of the dip on my dipping needle was 89°-59′, thus being one minute from the vertical.

Commander Ross then constructed a pyramid known for years as the Ross Cairn to mark the Magnetic Pole, and unknowingly erected a monument to a very dear friend who was to lose his life some sixteen years later in the same locality, Sir John Franklin.

The site, as Ross found it, was 70°–5′–17″ North Latitude; 96°–46′–45″ West Longitude; and also 85°–59′ from the vertical, practically right under foot.

Then came the climax of the expedition which, but for the intervention of closely related coincidences connected with previous voyages, would have ended the careers of Sir John and Commander Ross. In 1832, all hope of sailing the *Victory* home was abandoned. The party made a shelter near the spot where the *Fury* had gone aground. The old hulk had long disappeared but the quantities of food scattered around in sealed boxes were still edible after their eight years in nature's cold storage. Coincidence played a second role when the group started east in small boats. After several setbacks they reached Lancaster Sound and found a ship cruising in search for whales. One may easily imagine the emotions of Sir John when he shouted, "A-hoy. What ship?" and received the reply, "Whaler. *Isabella*. Once commanded by Sir John Ross."

Without further mishap the party reached England that October, Sir John to write a book and make nasty comments about the firm that built his self-designed fantastic steam engine; to which they made acid replies. Sir John more or less talked himself into a nation-wide debate on steam engines, argued himself out of the good graces of his friends and favorite clubs, and all but found himself involved in a slander suit with the steam-engine manufacturers. Encyclopedias, however, are inclined to be kind to the old gentleman and gloss over his failings. On the other hand, young Commander Ross settled down for a rest but found himself sought after for lectures and acting as consultant on arctic explorations. He so overshadowed his illustrious uncle that in 1838 the Admiralty called upon him to make a magnetic survey of the United Kingdom.

This assignment was followed by orders in April, 1839, to lead a two-ship expedition into the South Polar regions. Especially equipped to make magnetic surveys, the party was loaded aboard the *Erebus*, a staunchly built bomb thrower of 370 tons, and the *Terror*, of 340 tons, which had been strengthened at vital points for previous voyages into arctic waters. Commander F. R. M. Crozier was skipper of the second ship. Just before the sailing date, there was a hurried slashing of red tape and wire-pulling to make a place for a young surgeon, J. D. Hooker, who joined the Royal Navy just to get a commission and accompany the now Captain James Ross. It is reported that Dr. Hooker's interest in antarctic exploration lasted over the extraordinary period of "1839 to 1910." Ross reached Tasmania, favorite jumping-off point for southern explorers, and found the governor to be his old friend, Sir John Franklin. Conferences with Franklin are said to have changed Ross's mind pertaining to the meridian he intended to follow into the South Polar regions, a change which enabled him to approach closer to his goal. Leaving Hobart Town on November 12, 1840, he reached and crossed the Antarctic Circle on New Year's Day, 1841. Upon his arrival at the line of icebergs which had always dicouraged others, Ross boldly steered into the ice pack. Within a few days he reached the sea that now bears his name, Ross Sea.

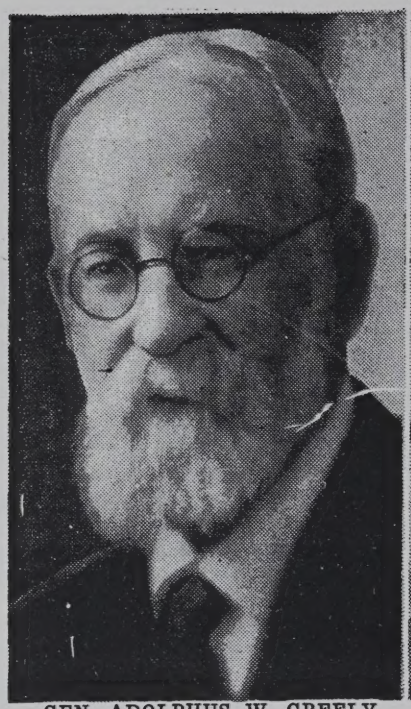
He sailed toward the South Magnetic Pole until stopped by a mountain range protected by a vast apron of ice. A small island attracted his attention; carrying the British flag he went ashore and took possession of all visible land in the name of Queen Victoria. Ross's own name was later attached to this island, which makes two islands named after him (Parry named an island after his young assistant during the Spitzbergen dash, in 1827). The loftiest peak to be seen was named in honor of Great Britain's Prime Minister, Melbourne; later a pair of Volcanoes were sighted, one of them still pouring out plumes of smoke. To these, Ross gave the names of his ships, the *Erebus* and *Terror*. Shortly after, the navigator obtained his first clear view of the Great Ice Shelf, now known as the Ross Ice Shelf.

The Ross Ice Shelf, besides being one of the greatest floating ice sheets in the world, is typical of those found in the antarctic. It is reported to be roughly the size of Colorado and Nevada together, and consists of a sheet of ice varying from 500 down to 12 feet in thickness, the outer end being open to the sea while the inner end is held fast to the continent by glaciers which also act as feeders. The surface of the ice shelf is relatively smooth and level and forms the easiest approach to the South Pole, reaching to a point within 300 miles of that spot, and coming within 160 miles of the magnetic pole, which Captain Ross was then trying to reach. Each summer when the break-up of the ice permits the full force of the ocean waves to pound at the face of the ice shelf, large fragments are "calved" or broken off and then carried by the currents to the north until they reach the warmer, albeit stormiest, seas. The belt of drifting ice ringing the antarctic is made up of ice from these glaciers.

Captain Ross took his ships along the flat forbidding face of the shelf for several hundred miles without sighting a suitable landing place or harbor for the winter. He made two more attempts later to reach the South Magnetic Pole, but finding the elements seemingly against him from all directions, he turned back for England. Thus ended the South Polar expedition of James Clark Ross, the first man to leave his name on the map at both ends of the globe, first to completely negotiate the Great Ice Barrier, first to sail the ice-ringed Ross Sea, first to find the Magnetic North Pole and assist in the first attempt to explore arctic regions in a steamship. Four years after his return, Ross, now Sir James Ross, published his book, *Voyage of Discovery in the South and Antarctic Seas*, which for many years, like its author, was the main source of authentic data concerning the south frigid zone, still in the throes of a million-year-old Ice Age.

There was just one more voyage Sir James was to make. It was an errand of mercy to a point somewhere midst those northern Canadian waters he knew so well. His old friend, Sir John Franklin, was "long overdue from that region." It would be a fitting end, indeed, to this story of a grand old explorer, entering his fifties, but still retaining much of the alertness and vigor of those many years his junior, if we could but say he returned with the lost Franklin. But hardships beyond human endurance had already written *Finis* to the expedition that had sailed away in Sir James' veterans of the antarctic, the *Erebus* and the *Terror*. Many vestiges of that lost expedition were found close by the Cairn that Ross had erected on the site of the Magnetic North Pole. On April 3, 1862, twelve years after his search for Franklin, Sir James took his own last, long cruise, leaving behind an enviable record of Firsts in explorations at both ends of the world.

U. S. Naval Institute Proceedings
DECEMBER 1944

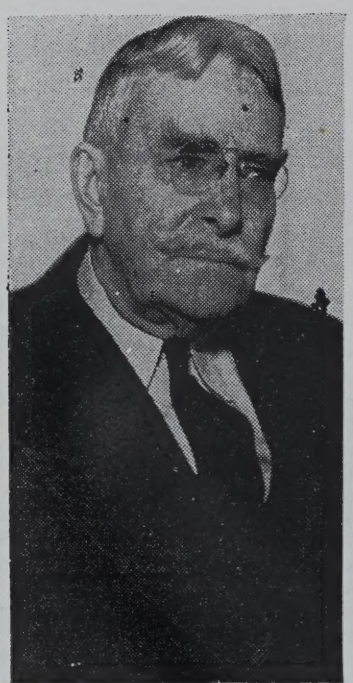


GEN. ADOLPHUS W. GREELY

THE PROTEUS CAUGHT IN THE ICE

AN EPIC of Arctic exploration was the story of the expedition to the North commanded by General Greely, then a Lieutenant.

It was on June 1, 1882, that a party of his men reached the northernmost point ever attained by man up to that time —83 degrees, 24 minutes. The Proteus was the relief ship which never reached the expedition because she was crushed in the ice.



BRIG. GEN. DAVID L. BRAINARD
The last survivor of the tragic Greely Arctic Expedition

Albert Operti's detailed painting of the dramatic rescue of the survivors of the Lady Franklin Bay expedition, 1881-84, by the United States Navy on June 22, 1884